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August 28, 2018
File No: 01.00171521.52

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
Northeast Regional Office
205B Lowell Street
Wilmington, Massachusetts 01887

Re: Release Abatement Measure (RAM) Status Report No. 5
Construction-Related Remediation Activities
Former Everett Staging Yard
One Broadway, Everett, Massachusetts
Release Tracking Number (RTN) 3-13341

To Whom It May Concern:

GZA has prepared this Release Abatement Measure (RAM) Status Report on behalf of Wynn MA, LLC (Wynn MA) to document construction-related RAM activities completed between February 1, 2018, and July 31, 2018, at the Former Everett Staging Yard Disposal Site (the "Site") and neighboring properties, which are collectively referred to as the RAM Project Area. The RAM Plan for these activities was prepared by GZA on behalf of Wynn MA, LLC and filed with the Massachusetts Department of Environmental Protection (MassDEP) on May 3, 2016. The RAM Plan has been modified three times, on November 16, 2016, February 2, 2017, and November 1, 2017.

A Site Locus Map is presented as Figure 1; the RAM Project Area is shown on Figure 2; and a Site Plan is included as Figure 3.

This is the fifth RAM Status Report for construction-related activities at the Site. This RAM Status Report was prepared following guidance contained in Section 40.0445 of the Massachusetts Contingency Plan (MCP). The original RAM transmittal form (BWSC-106) was electronically signed and submitted online to MassDEP using eDEP concurrent with this submittal. A copy of BWSC-106 is also included as Appendix A. This Report is subject to the Limitations in Appendix B.

The Site has been designated as a Public Involvement Plan (PIP) site per Section 40.1404 of the MCP. A Notice of Availability of this RAM Status Report has been emailed to local officials and residents on the PIP mailing list. A copy of this RAM Status Report has also been made available at the designated information repositories, on the Encore Boston Harbor (formerly Wynn Boston Harbor) website (www.encorebostonharbor.com), and on eDEP.

EXECUTIVE SUMMARY

As summarized in prior MCP submittals, soil, groundwater, and sediment at the Site have been contaminated by historical industrial site uses. The May 3, 2016, RAM Plan, and the November 16, 2016, February 2, 2017, and November 1, 2017, RAM Plan modifications (collectively, the Modified RAM Plan) outline MCP Response Actions that will be completed during construction, including the excavation and off-Site disposal of contaminated soils, the dredging of contaminated sediment, the sampling for asbestos in soil, perimeter dust monitoring, work-zone monitoring, placement of clean fill materials at locations within the



RAM Project Area, placement of clean cover materials over marker layers at locations within the RAM Project Area, and off-Site disposal of materials.

Activities completed during this performance period were primarily associated with the disposal characterization of excavated soils, sampling for asbestos in soil, perimeter and work-zone air monitoring, dewatering and treatment, the off-Site disposal of soils and sediment at appropriately permitted disposal facilities, and installation of marker layers and clean cover materials. RAM activities performed at the Site followed a Site-specific Health and Safety Plan (HASP) as outlined in the Modified RAM Plan.

RAM activities performed during this reporting period included:

- Communications with Mr. John Macauley of MassDEP regarding Site activities related to asbestos abatement under the Non-Traditional (NT) Plan;
- Collection and laboratory analyses of 312 soil samples for asbestos testing by a Massachusetts-certified laboratory using Polarized Light Microscopy (PLM);
- Collection and laboratory analyses of 102 soil samples for disposal characterization;
- Continuous perimeter air monitoring via AirLogics stations. AirLogics Station 4 (STA-4) was removed in June 2018, reflecting the reduction in active remediation areas;
- Excavation of soils associated with the construction/installation of utilities, marker layers, foundations, subsurface structures (e.g., detention basin), and expanded polystyrene (EPS) foam blocks;
- Off-Site disposal of approximately 26,988 tons of soil at appropriately permitted In-State and Out-of-State disposal facilities following Bill-of-Lading (BOL) procedures;
- Off-Site disposal of approximately 45 tons of additional soil containing asbestos at an appropriately permitted Out-of-State disposal facility following Bill-of-Lading and Massachusetts Asbestos Waste Shipment Record procedures;
- Provision to MassDEP of copies of laboratory reports for asbestos-in-soil testing;
- Installation of marker layers and clean cover materials throughout the southern peninsula and along a limited area on the northern and western portions of the Site following details included in the November 1, 2017, RAM Plan Modification;
- Decommissioning of the vehicle truck wash at the Site exit;
- Decommissioning of Site groundwater monitoring wells (GZ-601, 602, 603, 604, 605, and 606) located in the southern peninsula, as well as four additional wells located in the Retail Parcel;
- Demolition of the Dunkin' Donuts building (50 Broadway);
- Release notification to MassDEP for a Condition of Substantial Release Migration and subsequent preparation of an Immediate Response Action (IRA) Plan;
- Maintenance of site erosion controls; and



- Removal of miscellaneous materials (concrete obstructions, wood debris, steel, etc.) for off-Site recycling/disposal at appropriately permitted facilities.

INTRODUCTION

The Site is the location of a resort casino being developed by Wynn MA, LLC and is comprised of the former Everett Staging Yard and several neighboring properties. These areas are summarized below.

The Former Everett Staging Yard Site is located on the northern bank of the Mystic River in Everett, MA (Figure 2). The upland portion of the Site comprises approximately 21.75 acres of land, and the water-side portion comprises approximately 8.44 acres seaward of mean high water (MHW), including part of the Mystic River channel and an embayment in the southeast corner of the Site. Different portions of the Project RAM Area are referred to as follows:

- Former Everett Staging Yard Disposal Site: the MCP disposal site identified by MassDEP RTN 3-13341;
- Upland Property: the upland portion of the former Everett Staging Yard;
- Water-Side Site: the water-side portion of the Former Everett Staging Yard, where contaminants released from the Upland Property have come to be located in sediment in the Mystic River; and
- Channel: A historically dredged navigational channel within the embayment (bottom contours generally on the order of -16 to -18 feet NAVD88).

The following project activities are included in the Modified RAM Plan:

- Earthwork, construction dewatering, foundation construction, and utility installation for a building with below-ground parking, with a footprint of approximately 500,000 square feet (completed);
- Earthmoving and grading for landscape and open space amenities, including a proposed Harborwalk along the waterfront (ongoing); and
- Earthwork and dredging to construct significant improvements along the former structurally and ecologically degraded shoreline, including:
 - Construction of a replacement bulkhead comprised of concrete pile-supported deck above a stone slope revetment, along a section of the northwestern embayment shoreline (completed);
 - Construction of a replacement steel sheet-pile bulkhead along the northern and eastern embayment shoreline, in lieu of the existing deteriorated timber and stone bulkheads (completed);
 - Waterfront access to the Site via new floating docking facilities to be constructed in the embayment; and
 - Creation of a “living shoreline” of restored salt marsh and vegetated coastal bank along the waterfront (completed).

Wynn MA also controls or has negotiated easements on contiguous parcels that will be developed to provide vehicular access to the resort; these properties are referred to as the “neighboring properties” in this RAM. As shown on Figure 2, these lots include Parcels 1, 2, and 3 formerly owned by the Massachusetts Bay Transportation Authority (MBTA; 80 Broadway) and additional portions of this property still owned by the MBTA; properties at 20 and 38-50 Broadway; a portion of the property at 3 Charlton Street that is traversed by the constructed Service Road; the property at 128



Broadway; and the property at 150 Alford Street. The following project activities on these parcels are included in the RAM:

- Construction of the primary Access Driveway to the resort across Parcel 1 and the properties at 20 and 38-50 Broadway and 150 Alford Street (completed);
- Construction of a Service Road (completed) and associated utilities across Parcels 2 and 3 and a portion of the property at 3 Charlton Street, additional portions of the 80 Broadway property, 128 Broadway, and portions of Charlton Street and Broadway (completed); and
- Earthmoving and grading for landscape and open space amenities (ongoing).

DESCRIPTION OF RELEASE, SITE CONDITIONS AND SURROUNDING RECEPTORS

The following sections provide a brief description of the RAM Project Area, regulatory history, and release conditions being addressed by the RAM.

FORMER EVERETT STAGING YARD – UPLAND PROPERTY

The Site is located at One Broadway in Everett, Massachusetts (Figure 1) and lies within the disposal site boundary for RTN 3-13341. The Upland Property is an irregularly shaped parcel of land roughly bounded by Alford Street to the east, MBTA railroad tracks to the west, an MBTA bus repair and maintenance facility to the north, and the Mystic River to the south. The Site includes a peninsula of land that extends southerly into the Mystic River, and most of the small embayment located eastward of the peninsula (Figure 2). Access to the Upland Property is limited by the presence of a chain-link fence; security personnel control access to the Site at each of the gates.

Investigations conducted between 1995 and the present have identified several contaminants in soil, groundwater, and sediments at the Site, including metals, volatile organic compounds (VOCs), volatile petroleum hydrocarbon (VPH) fractions and target analytes, semi-volatile organic compounds (SVOCs), extractable petroleum hydrocarbon (EPH) fractions and target analytes, and polychlorinated biphenyls (PCBs). The sources of contamination at the Site include past industrial operations and the placement of contaminated fill. According to historic reports, the Site was occupied by the Cochran Chemical Company, the Merrimac Chemical Company, and the Monsanto Chemical Company from the late 1800s until the late 1960s. The buildings on the land-side portion of the Site were razed in the 1970s. The land-side portion of the Site has been used primarily as a material storage and staging yard since the mid-1990s, when rock and fine-grained sediment (“tunnel muck”) from the construction of the Deer Island Outfall was stockpiled on it in a 1- to 7-foot-thick layer. Other than temporary office trailers, there are currently no completed buildings at the Site.

The Site was briefly used as a staging area for concrete-encased utilities excavated from a property in Boston in November 1999. RTN 3-18971 was issued by MassDEP in November 1999 after it was discovered that the concrete-encased materials brought to the Site from Boston included Transite, an asbestos-containing material (ACM). Asbestos abatement was performed in December 1999 in accordance with a work plan approved by MassDEP and included the removal and off-property disposal of approximately 20 cubic yards of material. A Class A-1 RAO (Permanent Solution with no restrictions) was filed in January 2000 for this RTN.

Wynn MA acquired the former Everett Staging Yard on January 2, 2015. On February 5, 2015, Wynn MA filed an Eligible Person Submittal and a Revised Tier II Classification with MassDEP for RTN 3-13341. The Eligible Person Submittal outlined plans to address three impacted areas of the Site as part of a separate Pre-Construction RAM and plans to remove additional contaminated fill materials in concert with Site redevelopment, which is being performed as part of this Modified RAM Plan. The Pre-Construction RAM Completion Report and Immediate Response Action Completion Report



(filed under RTNs 3-13341 and 3-33284), which summarized remediation activities for the three areas was filed with MassDEP on August 4, 2016.

On May 25, 2018, GZA provided verbal notification of a release at the Site in accordance with the MCP. The 72-hour release notification was required due to a Condition of Substantial Release Migration in surface water from the Site. The surface water consisted of a visible concentrated flow of tidal flux water from the Site to the Mystic River. This release was assigned RTN 3-34943. No specific remediation activities were performed for this RTN. Regulatory closure of this release will be included in the permanent solution statement for the Site.

WATER-SIDE SITE

Historic releases of oil and hazardous material (OHM) at the Site also resulted in impacts to sediments in the Mystic River and embayment (i.e., the Water-Side Site). A Stage II Ecological Risk Characterization prepared by Menzie-Cura in 2006 concluded that the OHM in sediment presented a significant risk of harm to the benthic (bottom dwelling) community. The nature and extent of OHM at the Water-Side Site were further delineated by Supplemental Phase II assessment activities conducted by GZA and by AMEC, the results of which were presented in a Supplemental Phase II Comprehensive Site Assessment (CSA) Report and a Revised Supplemental Phase II CSA Report, submitted to MassDEP in December 2015 and December 2016, respectively.

Based on contaminant concentration distribution within the Water-Side Site sediments, and on statistical comparisons between Water-Side Site data and Local Conditions samples, the Phase II reports identified several Contaminants of Potential Ecological Concern in sediment associated with the Water-Side Site. The approach for addressing this contamination was presented in a Phase III Evaluation of Remedial Alternatives and Phase IV Remedy Implementation Plan Report, prepared by AMEC and filed with MassDEP on June 21, 2017.

NEIGHBORING PROPERTIES

20 AND 38-50 BROADWAY

These parcels are contiguous, extending from southwest (#20) to northeast (#38-50) along the northwest side of Broadway. The 20 Broadway Street property ("Lot D") is part of the construction site. The property at 38-50 Broadway Street is now a vacant lot (location of former Mobil gas station and former Dunkin' Donuts shop). The RAM Plan refers to this property as 38-50 Broadway based on the deed for the parcels. However, this location is referred to in some records as 30 Broadway.

The property at 38-50 Broadway was operated as a gas station since the mid-1900s; the most recent occupant, a Mobil station, was built in the late 1990s. In June 2017, GZA monitored the removal of three underground storage tanks (USTs) at the property including one 14,000-gallon gasoline UST, one 10,000-gallon gasoline UST, and one 6,000-gallon diesel UST. During the removals, all three USTs were observed to be in good condition with no signs of pitting or leakage and were double-walled fiberglass tanks. Laboratory testing results for volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH) analyses for excavation sidewall samples were below MCP Reportable Concentrations for Soil Category S-2. A UST Removal Report documenting removal activities was appended to the third RAM Status Report. The approximate locations of the former USTs are shown on Figures 2 and 3. Following removal of the USTs, the former Mobil station building was demolished and removed from the parcel which is now vacant.

In March 2018, the Dunkin Donuts building (50 Broadway) was demolished to accommodate site work related to landscaping.

The MBTA bus maintenance facility is to the northwest of the property; Horizon Way, across which is Lot 2, is to the southwest of 20 Broadway; and various commercial and industrial properties are to the southeast across Broadway and



Bow Street. The property to the northeast of 38-50 Broadway is occupied by the Honda Cars of Boston dealership; the portion of that property immediately abutting the 38-50 Broadway property is a fenced, unpaved area used to store vehicles available for sale by the dealership.

No releases have been reported for the 20 Broadway property. It is not a disposal site as defined by the MCP. However, given the known historic filling and urban, industrialized history of the area, soil and groundwater generated during construction activities at this location are being managed as part of the Modified RAM Plan.

MassDEP's Sites database indicates that two releases have been reported for the address of 30 Broadway, aka Parcel F, under RTNs 3-2526 and RTN 3-14553, and that Response Action Outcome (RAO; now referred to as a Permanent Solution Statement) statements without any associated deed restrictions have been filed for both RTNs.

In December 1998, MassDEP issued RTN 3-17760 for 38-50 Broadway (referenced as 38-48 Broadway on MassDEP's online database) for a release associated with a former underground storage tank at the property. The tank was removed, and subsequent response actions included the excavation and off-site disposal of approximately 585 tons of petroleum-contaminated soils. As part of a Class A-3 RAO, an AUL was filed in 2001, amended in 2009, and covers the entire property. Restricted uses for 38-40 Broadway include residential use of the property; use of the property for growing fruits or vegetables intended for consumption; use of the property for a school or day care facility; and any other activity that would result in uncontrolled exposures to soils at the property, unless evaluated and approved by a LSP. The extent of the AUL area is shown on Figure 2.

A second RTN (3-18291) was generated for 38-50 Broadway (referenced as 38 Broadway on MassDEP's online database) during redevelopment activities in late 1998 when the characterization of soils for off-site disposal indicated that concentrations of certain polycyclic aromatic hydrocarbons (PAHs) and lead in stockpiled soils were above MCP Reportable Concentrations. The stockpiled soil was disposed of off-site under the RAM provisions of the MCP. The RTN is currently classified as DEPnFA (No Further Action) by MassDEP.

A third RTN (3-27571) was generated on March 15, 2008 for 38-50 Broadway after gasoline was released to the ground surface as a result of a customer overfilling a vehicle gasoline tank. The release was reported to MassDEP and was remediated using absorbent materials. A Release Notification Retraction was submitted to MassDEP on March 27, 2008.

PARCELS 1, 2 AND 3 (FORMERLY PART OF THE MBTA REPAIR FACILITY AT 80 BROADWAY) AND ADDITIONAL PORTIONS OF 80 BROADWAY

Parcel 1 is a paved lot located in the southeastern portion of the MBTA property and included a small shed-like building on the southern portion of the property. Metal storage containers in the vicinity of the shed were used to store bus parts. The parcel is abutted by additional paved portions of the MBTA bus maintenance facility to the north and west, by Horizon Way to the southwest, and by the 20 and 38-50 Broadway properties to the northeast.

Parcel 2 consists of a strip of paved land located along the northeastern border of the MBTA property, extending approximately to the 3 Charlton Street property; various commercial properties along Broadway adjoin this parcel to the east.

Parcel 3 consists of a strip of paved land located along the western border of the MBTA property; railroad tracks adjoin this property to the west. An electrical tower is located in the south-central portion of the parcel.

The additional portions of 80 Broadway included in the Modified RAM Plan consist of paved areas contiguous with Parcels 1, 2 and 3.



Several RTNs have been identified for 80 Broadway Street, the address of the MBTA's bus maintenance facility; some cover the property as a whole and some apply only to smaller areas within the property. The following RTNs pertain to portions of the 80 Broadway property within the RAM Project Area.

On November 6, 2003, MassDEP issued RTN 3-23351 following notification of the presence of elevated concentrations of arsenic (35 mg/kg) and PAHs in soil. The source of the elevated PAHs and arsenic was attributed to the presence of coal ash associated with urban fill. OHM concentrations in groundwater were reported to be below reportable concentrations. A Class B-1 RAO (i.e., no restrictions on future activities or uses) was filed for RTN 3-23351 in 2005.

A Utility Related Abatement Measure (URAM) was performed in 2005 for NSTAR Electric & Gas. According to the report, NSTAR constructed a subsurface 115kV electric power transmission line connecting to the above-ground transmission line located on the MBTA property. The line extends from the Mystic Station electric power generating facility along Alford Street and Broadway to Chemical Lane to the MBTA property. Because the MBTA property was a listed MCP site, NSTAR notified MassDEP of the proposed work and MassDEP issued RTN 3-24832 for the subsurface utility work. Approximately 400 tons of soil was generated during the construction work; most of this was re-used as backfill, but approximately 69 cubic yards (approximately 100 tons) of soil was transported off-site for use as daily cover material at a Massachusetts landfill. Water generated during construction dewatering was recharged on-site within 100 feet of the excavation.

3 CHARLTON STREET

The property was formerly occupied by a multi-tenant commercial structure consisting of several interconnected buildings that were formerly used for industrial purposes. The 3 Charlton Street property is adjoined by railroad tracks, across which are the Gateway Center and vacant land, to the northwest and north; by Brickyard Lane, across which are a multi-story parking garage and newly constructed condominium buildings, to the northeast and east; and by the MBTA bus repair property to the south. Construction activities associated with the Modified RAM Plan have been completed on this Site where the Service Road traverses a portion of the 3 Charlton Street property.

Five RTNs have been issued for 3 Charlton Street (aka 9 Charlton Street).

RTN 3-1850 was issued to the former New England Bolt site on October 28, 1987 due to the presence of elevated concentrations of arsenic and beryllium in site soil. A Class A-3 Response Action Outcome Statement, was submitted to MassDEP on June 9, 2005. An AUL covering the northern portion of the property, filed as part of the RAO for RTN 3-1850, allows all commercial or industrial uses of the property. The AUL prohibits re-location of petroleum-impacted soil to another location on the property without the development and implementation of a Soil Management Plan; prohibits the use of the property as a residence, school, nursery, daycare or recreational facility without an LSP Evaluation Opinion stating that such use is consistent with maintaining a condition of NSR; and prohibits the construction of a new building without the use of a vapor barrier and a passive sub-slab venting system to prevent the migration of VOCs into the building.

RTN 3-19103 was issued on December 21, 1999 due to the detection of the volatile organic compound 1,1-dichloroethylene in the groundwater at a concentration of 17 ug/L. This RTN was closed by linking it to RTN 3-1850 on December 18, 2000.

RTN 3-24168 was issued on August 20, 2004, due to the detection of reportable concentrations of VOCs, petroleum fractions, and benzo(a)anthracene, a PAH compound, in the soil. The RTN was closed by linking it to RTN 3-1850 on October 13, 2004.

RTN 3-24699 was issued on March 14, 2005, due to the detection of reportable concentrations of petroleum hydrocarbons in soil and groundwater. A Downgradient Property Status (DPS) Opinion relative to this release was submitted to MassDEP on June 9, 2005. The DPS attributed alkane solvents detected in the groundwater to a release at the adjoining former Hub



Fabric Facility. The DPS area overlaps portions of the areas of petroleum releases identified on the 3 Charlton Street property.

This property was recently redeveloped with a new low-rise office building utilized as a construction field office. This redevelopment was conducted as a post-RAO RAM under a separate RTN (3-1850).

RTN 3-33680 was issued on July 11, 2016, due to the detection of trichloroethylene (TCE) in soil at levels above its reportable concentration during the execution of preliminary characterization borings within a portion of the Service Road on the Site. The area of the TCE detection is bounded by 3 Charlton Street to the north, Massachusetts Bay Transit Authority (MBTA) railway area to the west, the MBTA service facility to the east, and the service road to the South. A Utility-Related Abatement Measure (URAM) Plan was filed with MassDEP on July 19, 2016, which outlined procedures to manage soil and groundwater during the installation of a water line. URAM activities for RTN 3-33680 included excavation and off-Site disposal of approximately 850 cubic yards of soil to Waste Management's Turnkey Landfill in Rochester, New Hampshire. The URAM Completion Report was filed with MassDEP on October 31, 2017.

As part of MCP response actions for RTN 3-33680, GZA submitted a Phase I-Initial Site Investigation Report and Tier Classification to MassDEP on July 21, 2017, which resulted in a Tier II site classification. Three additional soil borings (SR-11E, SR-11 MID, and SR-11 W) were performed east and west of the URAM area on January 22, 2018, to bound the extent of TCE impacts to soil; the extent of TCE impacts to soil had already been delineated to the north and south. Visual, olfactory and photoionization detector (PID) evidence of potential contamination was not observed during the drilling program. Soil samples were selected from various depths in each of the three soil borings for laboratory analysis of VOCs; 10 soil samples were analyzed for VOCs. One VOC, TCE, was detected in 6 of the 10 soil samples. Except for one sample, SR-11 MID (10 to 15 feet), detected TCE concentrations were below applicable MCP Method 1 S-1 standards. TCE was detected at 0.4 mg/kg in the SR-11 MID (10 to 15 feet) sample which is slightly above its MCP S-1/GW-2 standard of 0.3 mg/kg. A comprehensive evaluation of the data was performed and a Permanent Solution Statement (PSS) for this RTN is expected to be filed in Fall 2018.

128 BROADWAY

This property is situated on the northwest side of Broadway and was formerly occupied by a McDonald's Restaurant. The MBTA bus maintenance facility adjoins the property to the northwest; a Honda automobile dealership at 100 Broadway adjoins the property to the southwest; a Public Storage facility at 140 Broadway adjoins the property to the northeast; and mixed commercial and residential properties are located across Broadway to the southeast.

No releases have been reported for the 128 Broadway property, and it is not a disposal site as defined by the MCP. Given the known historic filling and the urban, industrialized history of the area, soil and groundwater generated during construction activities at this location will be managed as part of this RAM.

150 ALFORD STREET

This property is situated on the corner of Horizon Way (formerly known as Chemical Lane) and Alford Street in Boston/Charlestown. The MBTA bus maintenance facility and the property at 20 Broadway are across Horizon Way to the northeast of 150 Alford Street; paved land and a vacant building are to the northwest; a building occupied by the Boston Water and Sewer Commission is to the southwest; and industrial and commercial property is across Alford Street to the southeast. Alford Street becomes Broadway at the Everett/Boston city line.

No releases have been reported for the 150 Alford Street property, and it is not a disposal site as defined by the MCP. Given the known historic filling and the urban, industrialized history of the area, soil and groundwater generated during construction activities at this location will be managed as part of this RAM.



RELEASE ABATEMENT MEASURE STATUS REPORT

The following sections of this document are intended to address the specific requirements for RAM Status Reports as outlined in the MCP at 310 CMR 40.0445 (2) (a) through (e).

(a) The Status of Response Actions

This fifth RAM Status Report documents construction-related RAM activities performed between February 1 and July 31, 2018.

Consistent with the prior RAM Status reports, mobilization of equipment and materials is ongoing to support various phases of construction.

The AirLogics perimeter air monitoring system has been monitored daily for PM10 particulates. As noted in the third RAM Plan Modification, the AirLogics monitoring stations were reduced from four locations to three on November 20, 2017, from three locations to two on December 26, 2017, and from two locations to one on June 20, 2018. No exceedances were reported during this RAM performance period. Additional details concerning the AirLogics monitoring are presented below.

Materials Management Areas (MMAs) for the temporary storage of excavated soils have been maintained on the southern peninsula and the eastern portion of the Site. These areas are shown on Figure 3.

Obstructions (concrete and timbers) have been encountered and removed from areas within the construction footprint along utility corridors and in areas where subsurface structures are being constructed (e.g., detention basin, foundations, EPS Foam block, utilities).

As discussed in Section (b) below, 102 soil samples were collected from soil stockpiles and/or in-situ for soil disposal characterization, and 312 soil samples were collected for laboratory analysis of asbestos using PLM methodology. Asbestos testing results were reported as non-detect (ND) with the exception of R11 0'-3.3' West, R8 0'-6.6' North, R34 3.3-6.6' North-West, 1A, 10A, and 15A.

Work zone monitoring was performed following the NT Plan protocols during asbestos in soil loading, on an as-needed basis. Misting of work areas was performed during these activities.

As discussed in Section (b) below, approximately 26,988 tons of soil (consisting of 21,090 tons of soil from the main Site and 5,898 tons of soil from the roadway improvement area) was transported off-Site for disposal at appropriately permitted facilities during the reporting period. Soils were transported following BOL tracking procedures.

Approximately 45 tons of soil containing asbestos was transported off-Site for disposal at Turnkey Landfill in Rochester, New Hampshire following BOL and Asbestos Waste Material Shipping Record tracking procedures.

During the RAM performance period, the RGP groundwater treatment system was decommissioned because it was no longer necessary and to allow construction to proceed at its former location on the southwest portion of the Site. The treatment system was used to treat groundwater from dewatering operations, groundwater seepage into the garage structure, and water from the Site wheel wash. The treatment of groundwater was discontinued in late November 2017. Water from the truck wheel wash was discharged into a re-infiltration pit upgradient of the wheel wash until the wheel wash was decommissioned.

Asphalt, concrete, and timber piles were transported off-Site and disposed of at appropriately permitted facilities.



Construction-related work performed during this RAM performance period included the following: soil excavations for EPS foam blocks on the southern and southeastern ends of the convention center; soil excavations for the installation of marker layers and clean cover materials throughout the southern peninsula and along a limited area on the northwestern and northeastern portions of the Site; soil excavations for utilities, foundations and subsurface structures (e.g., detention basin #1); and installation of landscape features (e.g., tree plantings, hardscape walkways, and tree pit drainage structures) throughout the southern peninsula and site entrance area. Geotechnically suitable soils have been reused on-Site to the extent possible.

Note that most of the soils encountered during construction excavation had been previously characterized for disposal purposes; when necessary, additional disposal characterization samples have been collected from stockpiled excavated soils to obtain disposal facility acceptance.

HEALTH AND SAFETY

Work activities in the RAM Project Area are performed by personnel trained to handle contaminated materials per Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1910.120. The original Health and Safety Plan governing GZA's activities at the RAM Project Area was attached to the Modified RAM Plan. That Health and Safety Plan has been modified to include additional environmental monitoring to evaluate the potential for airborne migration of asbestos fibers such that personal protective equipment (PPE) could be upgraded as necessary. During this RAM Status Report performance period, all air monitoring results for asbestos fibers in air were reported as below the 0.01 fibers per cubic centimeter criterion developed by the Massachusetts Department of Labor.

WATER TREATMENT

Groundwater encountered during construction excavations was pumped into the on-Site re-infiltration pit. In addition, water seepage into the building's subsurface garage and water generated from the Site wheel wash were also routed to the on-Site re-infiltration pit immediately upgradient of the wheel wash. As discussed below in Section (b), the groundwater treatment was discontinued in late November 2017 due to a decrease in the volume of water requiring treatment, and the groundwater treatment system was decommissioned in April 2018.

PERIMETER AIR MONITORING

Perimeter dust monitoring is performed on a continuous basis. The automated perimeter air monitoring system consists of individual AirLogics SolarLite monitoring stations with associated analytical instrumentation, a meteorological station, a computer control system, and an alarm system linked to the analytical instrumentation by an integrated communication/telemetry package. The meteorological station is used to identify which stations are upwind, downwind, or crosswind of RAM Project Area on a real-time basis. As noted above, AirLogics monitoring stations were reduced from four locations to three on November 20, 2017, from three locations to two on December 26, 2017, and from two locations to one on June 20, 2018. Stations STA-1, STA-2 and STA-4 were taken off-line as excavation and soil management activities were completed in these areas. Pavement or clean soil cover materials have been installed over on-Site soils in these areas. No exceedances were reported during this RAM performance period.

The analytical instrumentation within each perimeter station consists of a respirable particulate meter for the measurement of dust as a surrogate for polynuclear aromatic hydrocarbons (PAHs) and metals. The Respirable Particulate Meters are housed in weather-tight enclosures. The system operates on solar power and is configured with on-board battery backup. Data collected by the AirLogics system is used to evaluate compliance with the perimeter limits for dust developed as part of the Modified RAM Plan, and to identify any need to suspend or modify remediation activities due to Modified RAM-related air emissions. Weekly summary sheets are included as Appendix D.



Additional air monitoring was performed per requirements contained in the NT Plan, per the RAM Plan modifications, and per discussions with Mr. John Macauley and Mr. Andrew Clark, both of MassDEP. In addition to AirLogics' total dust monitoring, air monitoring during the reporting period included work zone and interior site monitoring/sampling for potential airborne asbestos fibers when earthwork or other activities in the RAM Project Area had the potential to disturb soil potentially containing asbestos or documented to have AIS. Air samples are analyzed for asbestos using Phase Contrast Microscopy (PCM) in accordance with the standards developed by the National Institute of Occupational Safety and Health (NIOSH). Refer to the RAM Plan modifications and NT Plan previously submitted to MassDEP for additional details regarding monitoring protocols.

DUST CONTROL MEASURES

Dust control measures are continuously employed to limit dust generation. These measures include covering trucks hauling soil off the RAM Project Area and covering roll-off containers and temporary stockpiles at the end of each day with either polyethylene sheeting or a spray-applied encapsulating agent (e.g., Gorilla Snot). Truck wheel washing stations were located near the construction exit (Dexter Street) to mitigate the tracking of materials from the RAM Project Area onto public roadways. Construction entrances and roadways are being swept on an as needed basis and water sprays have been applied on a consistent basis to limit dust generation.

Dust control measures specific to the NT Plan have also been employed for asbestos-related work activities and are similar to those outlined above. Refer to the NT Plan and RAM Plan modifications previously filed with MassDEP for additional detail.

PERMITS

EPA confirmed receipt of the Notice of Termination for the RGP on March 14, 2018. **(b) Any Significant New Site Information or Data**

SAMPLING AND ANALYSES

Former Retail Parcel Area

During the reporting period, 94 soil samples were collected either in-situ or from stockpiles generated during landscape excavations, installation of utilities, and site grading. A GZA field engineer collected the soil samples.

Roadway Improvement Area

During the reporting period, 8 soil samples were collected in-situ from proposed excavation locations within the roadway improvement area. Samples were collected by Strategic Environmental Services (SES) and submitted to an environmental testing laboratory for off-Site disposal pre-characterization.

Pre-Characterization Sampling and Analyses

Pre-characterization soil samples and asbestos sample locations are identified in the field by (1) cell coordinates which have been surveyed and marked using global positioning system (GPS) equipment (vertical and lateral controls), or (2) cell designations created within soil stockpiles. Cell dimensions varied to reflect construction excavations for select features or by the size of soil stockpile. Samples collected during the test pitting were typically collected at 3.3-foot intervals with some variation due to subsurface obstructions or to accommodate the depths of various utilities and various subsurface structures. Sample identifications for the pre-characterization samples reflected the location where the sample was collected (e.g., Landscape, EPS, Event Lawn, etc.).



Figure 3 shows the Materials Management Areas where soil stockpiles are managed (materials management areas). Figure 3 also shows the outline of the existing resort building currently under construction; earthwork associated with the resort structure has been completed and the approximate location of the observed concentrated flow of tidal flux water.

Pre-characterization samples were typically analyzed for VOCs, SVOCs (including pyridine), Pesticides (including toxaphene), Herbicides, total petroleum hydrocarbons (TPH), PCBs, MCP 14 metals, pH, Conductivity, Reactivity (cyanide and sulfide). In addition, delineation samples were collected from R21 0-6.6 to segregate soils identified as containing TCLP lead that required treatment within the disposal site boundary to reduce leachable metals concentrations for disposal purposes. Samples were submitted to Alpha Analytical of Westborough, Massachusetts, following chain-of-custody protocols. Samples collected by SES from the roadway improvement area were sent to New England Testing Laboratory in Warwick, Rhode Island. Laboratory data for soil samples collected during this time period are summarized on Tables 1 through 3, and laboratory data reports are provided in Appendix C.

The analytical parameters and sampling frequencies were selected to satisfy acceptance criteria for disposal of materials at Massachusetts lined and unlined landfills (Table 1 parameters in Policy # Comm-97-001) or the acceptance criteria identified by out-of-state disposal facilities and RCS-1 facilities in Massachusetts.

Asbestos in Soil Sampling and Analyses

Due to the detection of asbestos in soil associated with buried demolition debris that was excavated during construction activities at the Site, a RAM Plan modification was prepared in tandem with an NT Work Plan. The NT Plan was prepared by Environmental Health & Engineering, Inc. (EH&E) of Needham, Massachusetts and was submitted to MassDEP on November 16, 2016.

Per the RAM Plan modifications and November 2016 NT Plan, soil sampling for asbestos has been performed where demolition debris was visible and could potentially contain asbestos. Soil samples are collected at a frequency of one four-point composite sample per 100 cubic yards of soil. With this sampling approach, multiple asbestos samples were collected from designated pre-characterization cells and RAM Project Area. Areas that tested positive for asbestos in soil were identified on soil excavation/management figures prepared by GZA and the Contractor, Suffolk Construction.

During this reporting period, approximately 267 soil samples were collected from stockpiled soils and Site areas to be excavated that had not been previously characterized; samples were submitted to Eurofins/CEI Labs of Cary, North Carolina, for analysis of asbestos in soil by PLM methodology as discussed with MassDEP. In summary, 261 samples were collected from landscaped areas, including the former Mobil Lot and Retail Parcels; 4 samples were collected from drain line excavation areas; and 2 samples were collected from the Site entrance area signage and light pole bases. Laboratory testing results indicated that of the 267 soil samples collected and submitted for asbestos analysis, 264 soil samples were reported as "not detected" (ND) and 3 samples were reported as containing <1% asbestos. Laboratory testing results for the collected samples are included in Appendix D.

During this reporting period, approximately 45 in-situ soils samples were collected by SES from areas to be excavated as part of the roadway improvement project adjacent to Broadway. The samples were submitted to both NETL (20 samples subcontracted to EMSL Analytical, Woburn, Massachusetts) and Eurofins/CEI (25 samples) for asbestos in soil testing. Laboratory testing results indicated that of the 45 soil samples collected and submitted for asbestos analysis, 42 were reported as "not detected" and 3 samples were reported as containing <1% asbestos. Laboratory testing results for the collected samples are included in Appendix D.

RGP SAMPLING AND TESTING RESULTS



As noted above, during this reporting period the on-Site groundwater treatment system was demobilized. Treatment of wastewater under the RGP was suspended prior to the start of this reporting period, so no samples were collected.

GROUNDWATER SAMPLING AND ANALYSIS

As part of regulatory Site closure requirements, additional groundwater samples were collected from monitoring wells (MW-601, 602, 603, 604, 605, and 606) in February and April 2018. Samples were collected and analyzed for pH and RCRA-8 Metals. Laboratory testing results for the collected samples are summarized on Table 3 and laboratory reports are included in Appendix E.

SURFACE WATER SAMPLING AND ANALYSIS

At the request of MassDEP, GZA collected a surface water sample from the visible concentrated flow of tidal flux water that appears during outgoing tides on the eastern side of the Site. The sample was collected on May 16, 2018 and submitted for total metals (antimony, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, vanadium, and zinc) analyses. The Laboratory testing results for the collected sample are summarized on Table 4 and the laboratory report is included in Appendix E.

PERIMETER AIR MONITORING DATA

AirLogics

Perimeter dust monitoring has been performed on a continuous basis during this reporting period. The AirLogics system used at the Site was configured to generate 15-minute time-weighted averages of particulate levels. The system was programmed based on an action level for Respirable Particulate Matter (up to 10 micrometers in size (PM₁₀)) of 1,400 µg/m³ over upwind background along with warning level alarms set at lower thresholds designed to provide Project personnel with an advance warning of potential air quality issues. Weekly air monitoring summary sheets for this reporting period are included in Appendix D. Air emissions were within perimeter action limits during this RAM Status Report performance period. Water trucks to control dust generation continue to be utilized in the RAM Project Area.

Asbestos-Related Activities and Monitoring

As described in the first RAM Plan modification and NT Plans, air sampling stations for asbestos sampling were initially established at the four Site perimeter stations (AirLogics locations) and at four interior site monitoring locations on the Site, with two stations north of the garage excavation and two stations south of the garage excavation area. Monitoring was also performed at four compass direction locations around individual work zones where asbestos-impacted soil was or could be disturbed. Samples were collected and analyzed for total airborne fibers, including but not specific to asbestos, using Phase Contrast Microscopy (PCM) methodology. Samples were collected on 4-hour monitoring periods and analyzed on-Site for total fiber count for real-time evaluation on the day the work was being performed.

Since the implementation of these air monitoring activities, no perimeter sampling results have exceeded the established action level of 0.010 f/cc. The absence of action level exceedances of asbestos fibers confirmed that the controls put in place as part of the Modified RAM Plan were effective at reducing migration of airborne fibers, and that the airborne migration of fibers is not a significant exposure pathway at the RAM Project Area. Thus, on February 2, 2017, following a discussion with Mr. MacAuley of MassDEP, a second RAM Plan modification was submitted to MassDEP which removed the requirement for the perimeter and interior air sampling for total airborne fibers, but still required work zone monitoring at locations where asbestos-impacted soil was or could be disturbed. Work zone monitoring is now performed on an as-needed basis.



Equipment and vehicles that contact asbestos-impacted soil were decontaminated using a wheel wash prior to moving onto public streets. Wastewater from the decontamination was processed through 5-micron filter bags and discharged into a re-infiltration pit immediately upgradient of the wheel wash. Used 5-micron filtration bags were disposed of as asbestos-containing material.

In addition, third-party monitoring and clearance monitoring was performed during this RAM reporting period by Massachusetts-licensed asbestos monitors from Environmental Health & Engineering, Inc. (EH&E), of Newton, Massachusetts, during the abatement of soils containing asbestos at two separate locations within the RAM area in May 2018. Excavated asbestos impacted materials were loaded into appropriately labeled and sealed containers for off-Site disposal.

NewRoads Environmental (NewRoads), a Massachusetts Licensed Asbestos Contractor (AC000822) contracted by the site subcontractor, JDC, performed asbestos abatement and coordinated off-Site disposal of the abated asbestos materials. These activities were communicated to Mr. John MacAuley of MassDEP prior to implementation, and a Bureau of Waste Prevention AQ 04 (ANF-001) PreForm was filed for soil removal in April 2018.

(c) Details of and/or Plans for the Management of Remediation Waste, Remedial Wastewater and/or Remedial Additives

During this RAM Status Report performance period, approximately 26,988 tons of impacted soil was removed from the RAM Project Area and transported to various disposal facilities. This quantity includes approximately 5,898 tons removed from the roadway improvement area adjacent to Broadway that was managed by others (SPS/SES). A breakdown of the approximate total soil volumes received per facility is presented below.

- Approximately 13,284 tons of soil to a Massachusetts Unlined Landfill (Clinton Landfill) under BOLs including 3,684 tons from the roadway improvement area;
- Approximately 2,694 tons of soil to a Massachusetts Lined Landfill (480 tons to Taunton from the main site and 2,214 tons to Haverhill from the roadway improvement area) under BOLs;
- Approximately 10,950 tons of soil to Turnkey Landfill (TREE) in Rochester, New Hampshire (RCRA D Facility) under BOLs from the main site; and
- Approximately 45 tons of asbestos-impacted soil to TREE in Rochester, New Hampshire (RCRA D Facility) under BOLs and Asbestos Shipping Records from the roadway improvement area.

BOL attestations, with the exception of BOLs for the roadway improvement soils, are being prepared by GZA. BOLs for the roadway improvement soils were prepared by SES. BOLs, Asbestos Shipping Records, and Hazardous Waste Manifest tracking documents will be provided to MassDEP as separate submittals.

(d) Any other information that the Department during its review and evaluation of a Status Report determines to be necessary to complete said Status Report, in view of Site specific circumstances and conditions

No other specific information has been requested by the MassDEP.

(e) An LSP Opinion as to whether the Release Abatement Measure is being conducted in conformance with the Release Abatement Measure Plan and any conditions of approval established by the Department



The LSP Opinion concerning whether the RAM is being conducted in conformance with the Modified RAM Plan is included on the Transmittal Form (BWSC106) attached to this RAM Status Report in Appendix A. It is the LSP's Opinion that this RAM is being conducted in conformance with the May 3, 2016, RAM Plan and subsequent RAM Plan Modifications.

We trust this information satisfies your requirements. Should you have questions, please feel free to contact the undersigned.

Sincerely,
GZA GEOENVIRONMENTAL, INC.

Daniel R. Scanlon
Assistant Project Manager

Matthew M. Smith
Consultant Reviewer

Lawrence Feldman, LSP
Senior Principal

- Attachments:
- Table 1 – Landscape Stockpiles Analytical Test Results
 - Table 2 – Main Site, Utility, and Former Retail Parcel Analytical Test Results
 - Table 3 – Groundwater Analytical Test Results
 - Table 4 – Concentrated Flow of Tidal Flux Water Test Results
 - Table 5 – Roadway Improvement Area Analytical Test Results
-
- Figure 1 - Site Locus Map
 - Figure 2 - RAM Project Area
 - Figure 3 - Site Plan
 - Appendix A - Transmittal Form BWSC106
 - Appendix B – Limitations
 - Appendix C - Soil Disposal Laboratory Reports
 - Appendix D – Asbestos in Soil Laboratory Testing Reports
 - Appendix E- Laboratory Report for Groundwater and Concentrated Flow of Tidal Flux Water
 - Appendix F - AirLogics Weekly Reports





Tables

TABLE 1
 LANDSCAPE STOCKPILES ANALYTICAL TEST RESULTS
 Encore Boston Harbor
 One Broadway
 Everett, Massachusetts

Analyte	Maximum Reported Concentration All Samples in List	Precharacterization Cell Sample ID Laboratory Work Order Depth Interval Sampling Date	LANDSCAPE 9 S2	LANDSCAPE_12_EAST	LANDSCAPE_12_WEST	LANDSCAPE_13_1	LANDSCAPE_13_2	LANDSCAPE_13_3
			L1813260/L1813633 4/17/2018	L1819851 5/30/2018	L1819851/L1820579 5/30/2018	L1822848/L1823947 6/18/2018	L1822848/L1823947 6/18/2018	L1822848/L1823947 6/18/2018
Total Metals		Units						
Antimony	25.3	mg/kg	13.5	< 2.12	2.97	4.34	< 2.15	2.63
Arsenic	149	mg/kg	120	2.88	22.2	51.1	24.9	33
Barium	117	mg/kg	74.4	53.2	34.8	54.7	37	53.2
Beryllium	0.356	mg/kg	< 0.266	0.255	< 0.204	0.234	0.233	0.249
Cadmium	2.77	mg/kg	1.4	< 0.424	0.488	< 0.418	< 0.431	< 0.409
Chromium	33.3	mg/kg	28.8	16.7	8.44	17.9	15.2	17
Lead	751	mg/kg	460	24.8	104	250	106	158
Mercury	14.9	mg/kg	3.1	2.34	0.781	2.01	1.01	1.52
Nickel	72.7	mg/kg	14.5	6.45	5.73	11.1	9.16	11.6
Selenium	27	mg/kg	13.4	< 2.12	2.72	9.34	8.71	7.04
Silver	2.72	mg/kg	2.49	< 0.424	< 0.407	0.64	< 0.431	0.417
Thallium	ND	mg/kg	< 2.66	< 2.12	< 2.04	< 2.09	< 2.15	< 2.04
Vanadium	42.4	mg/kg	30.1	13.4	13.5	29.7	28.6	40.3
Zinc	277	mg/kg	192	44.4	101	185	77.9	106
Metals by Toxicity Characteristic Leaching Procedure (TCLP)								
Arsenic, TCLP	ND	mg/l	< 1.0	--	--	--	--	--
Lead, TCLP	4.66	mg/l	< 0.50	--	< 0.50	0.56	< 0.50	< 0.50
Mercury, TCLP	0.124	mg/l	--	--	--	--	--	--
Selenium, TCLP	ND	mg/l	--	--	--	--	--	--
Herbicides								
2,4,5-T	ND	mg/kg	<2.3	<1.8	<0.035	<1.8	<0.7	<1.7
2,4,5-TP (Silvex)	ND	mg/kg	<2.3	<1.8	<0.035	<1.8	<0.7	<1.7
2,4-D	ND	mg/kg	<2.3	<1.8	<0.035	<1.8	<0.7	<1.7
2,4-DB	ND	mg/kg	<2.3	<1.8	<0.035	<1.8	<0.7	<1.7
Dalapon	ND	mg/kg	<2.3	<1.8	<0.035	<1.8	<0.7	<1.7
Dicamba	ND	mg/kg	<2.3	<1.8	<0.035	<1.8	<0.7	<1.7
Dichlorprop	ND	mg/kg	<2.3	<1.8	<0.035	<1.8	<0.7	<1.7
Dinoseb	ND	mg/kg	<2.3	<1.8	<0.035	<1.8	<0.7	<1.7
MCPA	ND	mg/kg	<230	<180	<3.5	<180	<70	<170
MCPP	ND	mg/kg	<230	<180	<3.5	<180	<70	<170
Total Herbicides	ND	mg/kg	ND	ND	ND	ND	ND	ND
Pesticides								
4,4'-DDD	0.0278	mg/kg	<0.00213	<0.0856	<0.0806	<0.0853	<0.0837	<0.0814
4,4'-DDE	0.00569	mg/kg	<0.00213	<0.0856	<0.0806	<0.0853	<0.0837	<0.0814
4,4'-DDT	0.122	mg/kg	0.0736	<0.16	<0.151	<0.16	<0.157	<0.153
Aldrin	ND	mg/kg	<0.00213	<0.0856	<0.0806	<0.0853	<0.0837	<0.0814
alpha-BHC	ND	mg/kg	<0.000886	<0.0356	<0.0336	<0.0355	<0.0349	<0.0339
beta-BHC	ND	mg/kg	<0.00213	<0.0856	<0.0806	<0.0853	<0.0837	<0.0814
Chlordane	ND	mg/kg	<0.0173	<0.695	<0.655	<0.693	<0.68	<0.662
delta-BHC	ND	mg/kg	<0.00213	<0.0856	<0.0806	<0.0853	<0.0837	<0.0814
Dieldrin	0.0244	mg/kg	0.0244	<0.0535	<0.0504	<0.0533	<0.0523	<0.0509
Endosulfan I	ND	mg/kg	<0.00213	<0.0856	<0.0806	<0.0853	<0.0837	<0.0814
Endosulfan II	0.00464	mg/kg	0.00464	<0.0856	<0.0806	<0.0853	<0.0837	<0.0814
Endosulfan sulfate	ND	mg/kg	<0.000886	<0.0356	<0.0336	<0.0355	<0.0349	<0.0339
Endrin	0.00135	mg/kg	<0.000886	<0.0356	<0.0336	<0.0355	<0.0349	<0.0339
Endrin ketone	0.0105	mg/kg	<0.00213	<0.0856	<0.0806	<0.0853	<0.0837	<0.0814
Heptachlor	ND	mg/kg	<0.00106	<0.0428	<0.0403	<0.0426	<0.0419	<0.0407
Heptachlor epoxide	0.0114	mg/kg	<0.00399	<0.16	<0.151	<0.16	<0.157	<0.153
Hexachlorobenzene	ND	mg/kg	<0.00213	<0.0856	<0.0806	<0.0853	<0.0837	<0.0814
Lindane	ND	mg/kg	<0.000709	<0.0285	<0.0268	<0.0284	<0.0279	<0.0271
Methoxychlor	ND	mg/kg	<0.00399	<0.16	<0.151	<0.16	<0.157	<0.153
Toxaphene	ND	mg/kg	<0.0399	<1.6	<1.51	<1.6	<1.57	<1.53
Total Pesticides	0.15459	mg/kg	0.10264	ND	ND	ND	ND	ND
Polychlorinated Biphenyls								
Aroclor 1016	ND	mg/kg	<0.0457	<0.178	<0.035	<0.0684	<0.0347	<0.0338
Aroclor 1221	ND	mg/kg	<0.0457	<0.178	<0.035	<0.0684	<0.0347	<0.0338
Aroclor 1232	ND	mg/kg	<0.0457	<0.178	<0.035	<0.0684	<0.0347	<0.0338
Aroclor 1242	0.647	mg/kg	<0.0457	<0.178	<0.035	<0.0684	<0.0347	<0.0338
Aroclor 1248	ND	mg/kg	<0.0457	<0.178	<0.035	<0.0684	<0.0347	<0.0338
Aroclor 1254	14.7	mg/kg	0.525	1.37	0.282	1.06	0.21	0.526
Aroclor 1260	0.998	mg/kg	0.0915	0.208	0.0798	<0.0684	0.0704	0.0925
Aroclor 1262	ND	mg/kg	<0.0457	<0.178	<0.035	<0.0684	<0.0347	<0.0338
Aroclor 1268	2.44	mg/kg	<0.0457	<0.178	<0.035	<0.0684	<0.0347	<0.0338
Total PCBs	14.7	mg/kg	0.6165	1.578	0.3618	1.06	0.2804	0.6185
Total Petroleum Hydrocarbons	381	mg/kg	241	240	190	362	214	276
Volatile Organic Compounds								
1,1,1,2-Tetrachloroethane	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00041	<0.00035	<0.00035
1,1,1-Trichloroethane	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00041	<0.00035	<0.00035
1,1,2,2-Tetrachloroethane	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00041	<0.00035	<0.00035
1,1,2-Trichloroethane	ND	mg/kg	<0.14	<0.0013	<0.0016	<0.00082	<0.0007	<0.0007
1,1-Dichloroethane	ND	mg/kg	<0.14	<0.0013	<0.0016	<0.00082	<0.0007	<0.0007

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			4/17/2018	5/30/2018	5/30/2018	6/18/2018	6/18/2018	6/18/2018
1,1-Dichloroethene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
1,1-Dichloropropene	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.00041	<0.00035	<0.00035
1,2,3-Trichlorobenzene	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
1,2,3-Trichloropropane	ND	ug/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
1,2,4-Trichlorobenzene	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
1,2,4-Trimethylbenzene	ND	ug/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
1,2-Dibromo-3-chloropropane	ND	ug/kg	<0.39	<0.0035	<0.0042	<0.0025	<0.0021	<0.0021
1,2-Dibromoethane	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.00082	<0.0007	<0.0007
1,2-Dichlorobenzene	ND	ug/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
1,2-Dichloroethane	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
1,2-Dichloropropane	ND	mg/kg	<0.34	<0.0031	<0.0036	<0.00082	<0.0007	<0.0007
1,3,5-Trimethylbenzene	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
1,3-Dichlorobenzene	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
1,3-Dichloropropane	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
1,4-Dichlorobenzene	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
1,4-Dioxane	ND	mg/kg	<3.9	<0.035	<0.042	<0.082	<0.07	<0.07
2,2-Dichloropropane	ND	mg/kg	<0.48	<0.0044	<0.0052	<0.0016	<0.0014	<0.0014
2-Butanone	ND	mg/kg	<0.97	<0.0088	<0.01	<0.0082	<0.007	<0.007
2-Hexanone	ND	mg/kg	<0.97	<0.0088	<0.01	<0.0082	<0.007	<0.007
4-Methyl-2-pentanone	ND	mg/kg	<0.97	<0.0088	<0.01	<0.0082	<0.007	<0.007
Acetone	0.055	mg/kg	<3.5	<0.032	<0.038	<0.0082	<0.007	<0.007
Benzene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00041	<0.00035	<0.00035
Bromobenzene	ND	mg/kg	<0.48	<0.0044	<0.0052	<0.0016	<0.0014	<0.0014
Bromochloromethane	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
Bromodichloromethane	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00041	<0.00035	<0.00035
Bromoform	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0033	<0.0028	<0.0028
Bromomethane	ND	mg/kg	<0.19	<0.0018	<0.0021	<0.0016	<0.0014	<0.0014
Carbon disulfide	0.32	mg/kg	<0.39	<0.0035	<0.0042	<0.0082	<0.007	<0.007
Carbon tetrachloride	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
Chlorobenzene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00041	<0.00035	<0.00035
Chloroethane	ND	mg/kg	<0.19	<0.0018	<0.0021	<0.0016	<0.0014	<0.0014
Chloroform	ND	mg/kg	<0.14	<0.0013	<0.0016	<0.0012	<0.001	<0.001
Chloromethane	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0033	<0.0028	<0.0028
cis-1,2-Dichloroethene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
cis-1,3-Dichloropropene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00041	<0.00035	<0.00035
Dibromochloromethane	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
Dibromomethane	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
Dichlorodifluoromethane	ND	mg/kg	<0.97	<0.0088	<0.01	<0.0082	<0.007	<0.007
Diethyl ether	ND	mg/kg	<0.48	<0.0044	<0.0052	<0.0016	<0.0014	<0.0014
Di-isopropyl ether	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
Ethyl tertiary-butyl ether	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
Ethylbenzene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
Hexachlorobutadiene	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0033	<0.0028	<0.0028
Isopropylbenzene	ND	ug/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
Methyl tert-butyl ether	ND	mg/kg	<0.19	<0.0018	<0.0021	<0.0016	<0.0014	<0.0014
Methylene chloride	ND	mg/kg	<0.97	<0.0088	<0.01	<0.0041	<0.0035	<0.0035
Naphthalene	2.7	mg/kg	1.7	<0.0035	<0.0042	<0.0033	<0.0028	<0.0028
n-Butylbenzene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
n-Propylbenzene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
o-Chlorotoluene	ND	ug/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
o-Xylene	ND	ug/kg	<0.19	<0.0018	<0.0021	<0.00082	<0.0007	<0.0007
p/m-Xylenes	ND	mg/kg	<0.19	<0.0018	<0.0021	<0.0016	<0.0014	<0.0014
p-Chlorotoluene	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
p-Isopropyltoluene	0.22	ug/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
sec-Butylbenzene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
Styrene	ND	mg/kg	<0.19	<0.0018	<0.0021	<0.0016	<0.0014	<0.0014
Tert-amyl methyl ether	ND	ug/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
Tert-Butylbenzene	ND	ug/kg	<0.39	<0.0035	<0.0042	<0.0016	<0.0014	<0.0014
Tetrachloroethene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00041	<0.00035	<0.00035
Tetrahydrofuran	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0033	<0.0028	<0.0028
Toluene	ND	mg/kg	<0.14	<0.0013	<0.0016	<0.00082	<0.0007	<0.0007
trans-1,2-Dichloroethene	ND	mg/kg	<0.14	<0.0013	<0.0016	<0.0012	<0.001	<0.001
trans-1,3-Dichloropropene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00082	<0.0007	<0.0007
Trichloroethene	ND	mg/kg	<0.097	<0.00088	<0.001	<0.00041	<0.00035	<0.00035
Trichlorofluoromethane	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0033	<0.0028	<0.0028
Trichlorofluoromethane	ND	mg/kg	<0.39	<0.0035	<0.0042	<0.0033	<0.0028	<0.0028
Vinyl chloride	ND	mg/kg	<0.19	<0.0018	<0.0021	<0.00082	<0.0007	<0.0007
Xylenes, Total	ND	mg/kg	<0.19	<0.0018	<0.0021	<0.00082	<0.0007	<0.0007
Total VOCs	3.02	mg/kg	1.7	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds								
1,2,4-Trichlorobenzene	ND	mg/kg	<0.23	<0.18	<0.17	<0.18	<0.18	<0.17
1,2-Dichlorobenzene	ND	mg/kg	<0.23	<0.18	<0.17	<0.18	<0.18	<0.17
1,3-Dichlorobenzene	ND	mg/kg	<0.23	<0.18	<0.17	<0.18	<0.18	<0.17
1,4-Dichlorobenzene	ND	mg/kg	<0.23	<0.18	<0.17	<0.18	<0.18	<0.17

Analyte	Maximum Reported Concentration All Samples in List	Precharacterization Cell Sample ID Laboratory Work Order Sampling Date	R5	R6	R7	R8	R9	R21_TCLP_S1	R21_TCLP_S3	R21_TCLP_S4	R21_TCLP_S5	R21_TCLP_S7
			R5 3.3-6.6' L1822649/L1823685 6/15/2018	R6 0-3.3' L1822449/L1823433 6/14/2018	R7 0-6.6' L1822651/L1823686 6/15/2018	R8 0-6.6' L1822449/L1823433 6/14/2018	R9 0-6.6 L1822850 6/18/2018	TCLP DELINEATION S1 L1827069 7/10/2018	TCLP DELINEATION S3 L1826062 7/10/2018	TCLP DELINEATION S4 L1826062 7/10/2018	TCLP DELINEATION S5 L1826062 7/10/2018	TCLP DELINEATION S7 L1826062 7/10/2018
Total Metals												
Antimony	24.6	Units	2.46	3.94	2.23	2.27	< 2.07	--	--	--	--	--
Arsenic	321	mg/kg	14.1	8.52	8.57	8.42	5.33	--	--	--	--	--
Barium	182	mg/kg	82.9	66.8	66.2	82.8	27.9	--	--	--	--	--
Beryllium	1.1	mg/kg	0.364	0.339	0.312	0.281	0.22	--	--	--	--	--
Cadmium	11.6	mg/kg	< 0.444	< 0.429	< 0.417	< 0.413	< 0.415	--	--	--	--	--
Chromium	77.4	mg/kg	16.3	14.4	14.6	12.4	19	--	--	--	--	--
Lead	2020	mg/kg	146	164	206	178	20.5	--	--	--	--	--
Mercury	5.96	mg/kg	0.623	0.252	0.308	0.506	0.106	--	--	--	--	--
Nickel	43.6	mg/kg	13.1	13.9	13.7	12.6	13.9	--	--	--	--	--
Selenium	111	mg/kg	< 2.22	< 2.14	< 2.08	< 2.07	< 2.07	--	--	--	--	--
Silver	3.38	mg/kg	< 0.444	< 0.429	< 0.417	< 0.413	< 0.415	--	--	--	--	--
Thallium	3.94	mg/kg	< 2.22	< 2.14	< 2.08	< 2.07	< 2.07	--	--	--	--	--
Vanadium	151	mg/kg	29.5	28.9	27.2	20.4	21.8	--	--	--	--	--
Zinc	565	mg/kg	159	106	130	169	56	--	--	--	--	--
Metals by Toxicity Characteristic Leaching Procedure (TCLP)												
Arsenic, TCLP	ND	mg/l	--	--	--	--	--	--	--	--	--	--
Lead, TCLP	97.4	mg/l	< 0.50	< 0.50	< 0.50	< 0.50	--	0.999	5.61	0.753	0.5	< 0.50
Mercury, TCLP	ND	mg/l	--	--	--	--	--	--	--	--	--	--
Selenium, TCLP	ND	mg/l	--	--	--	--	--	--	--	--	--	--
Herbicides												
2,4,5-T	ND	mg/kg	<0.038	<0.036	<0.036	<0.036	<0.035	--	--	--	--	--
2,4,5-TP (Silvex)	ND	mg/kg	<0.038	<0.036	<0.036	<0.036	<0.035	--	--	--	--	--
2,4-D	ND	mg/kg	<0.038	<0.036	<0.036	<0.036	<0.035	--	--	--	--	--
2,4-DB	ND	mg/kg	<0.038	<0.036	<0.036	<0.036	<0.035	--	--	--	--	--
Dalapon	ND	mg/kg	<0.038	<0.036	<0.036	<0.036	<0.035	--	--	--	--	--
Dicamba	ND	mg/kg	<0.038	<0.036	<0.036	<0.036	<0.035	--	--	--	--	--
Dichlorprop	ND	mg/kg	<0.038	<0.036	<0.036	<0.036	<0.035	--	--	--	--	--
Dinoseb	ND	mg/kg	<0.038	<0.036	<0.036	<0.036	<0.035	--	--	--	--	--
MCPA	ND	mg/kg	<3.8	<3.6	<3.6	<3.6	<3.5	--	--	--	--	--
MCPP	ND	mg/kg	<3.8	<3.6	<3.6	<3.6	<3.5	--	--	--	--	--
Total Herbicides	ND	mg/kg	ND	ND	ND	ND	ND	--	--	--	--	--
Pesticides												
4,4'-DDD	0.00186	mg/kg	<0.00876	<0.00827	<0.0165	<0.00855	<0.0165	--	--	--	--	--
4,4'-DDE	ND	mg/kg	<0.00876	<0.00827	<0.0165	<0.00855	<0.0165	--	--	--	--	--
4,4'-DDT	0.344	mg/kg	<0.0164	<0.0155	<0.031	<0.016	<0.0309	--	--	--	--	--
Aldrin	ND	mg/kg	<0.00876	<0.00827	<0.0165	<0.00855	<0.0165	--	--	--	--	--
alpha-BHC	ND	mg/kg	<0.00365	<0.00345	<0.00688	<0.00356	<0.00687	--	--	--	--	--
beta-BHC	ND	mg/kg	<0.00876	<0.00827	<0.0165	<0.00855	<0.0165	--	--	--	--	--
Chlordane	0.186	mg/kg	<0.0712	<0.0672	<0.134	<0.0695	<0.134	--	--	--	--	--
delta-BHC	ND	mg/kg	<0.00876	<0.00827	<0.0165	<0.00855	<0.0165	--	--	--	--	--
Dieldrin	0.157	mg/kg	<0.00547	<0.00517	<0.0103	<0.00534	<0.0103	--	--	--	--	--
Endosulfan I	ND	mg/kg	<0.00876	<0.00827	<0.0165	<0.00855	<0.0165	--	--	--	--	--
Endosulfan II	0.00322	mg/kg	<0.00876	<0.00827	<0.0165	<0.00855	<0.0165	--	--	--	--	--
Endosulfan sulfate	0.029	mg/kg	<0.00365	<0.00345	<0.00688	<0.00356	<0.00687	--	--	--	--	--
Endrin	0.906	mg/kg	<0.00365	<0.00345	<0.00688	<0.00356	<0.00687	--	--	--	--	--
Endrin ketone	ND	mg/kg	<0.00876	<0.00827	<0.0165	<0.00855	<0.0165	--	--	--	--	--
Heptachlor	ND	mg/kg	<0.00438	<0.00414	<0.00826	<0.00428	<0.00824	--	--	--	--	--
Heptachlor epoxide	ND	mg/kg	<0.0164	<0.0155	<0.031	<0.016	<0.0309	--	--	--	--	--
Hexachlorobenzene	ND	mg/kg	<0.00876	<0.00827	<0.0165	<0.00855	<0.0165	--	--	--	--	--
Lindane	ND	mg/kg	<0.00292	<0.00276	<0.0055	<0.00285	<0.0055	--	--	--	--	--
Methoxychlor	ND	mg/kg	<0.0164	<0.0155	<0.031	<0.016	<0.0309	--	--	--	--	--
Toxaphene	ND	mg/kg	<0.164	<0.155	<0.31	<0.16	<0.309	--	--	--	--	--
Total Pesticides	1.25	mg/kg	ND	ND	ND	ND	ND	--	--	--	--	--
Polychlorinated Biphenyls												
Aroclor 1016	ND	mg/kg	<0.0373	<0.0348	<0.0346	<0.0358	<0.0338	--	--	--	--	--
Aroclor 1221	ND	mg/kg	<0.0373	<0.0348	<0.0346	<0.0358	<0.0338	--	--	--	--	--
Aroclor 1232	ND	mg/kg	<0.0373	<0.0348	<0.0346	<0.0358	<0.0338	--	--	--	--	--
Aroclor 1242	ND	mg/kg	<0.0373	<0.0348	<0.0346	<0.0358	<0.0338	--	--	--	--	--
Aroclor 1248	ND	mg/kg	<0.0373	<0.0348	<0.0346	<0.0358	<0.0338	--	--	--	--	--
Aroclor 1254	1.2	mg/kg	<0.0373	<0.0348	<0.0346	<0.0358	<0.0338	--	--	--	--	--
Aroclor 1260	7.54	mg/kg	0.0985	0.358	0.0966	<0.0358	<0.0338	--	--	--	--	--
Aroclor 1262	ND	mg/kg	<0.0373	<0.0348	<0.0346	<0.0358	<0.0338	--	--	--	--	--
Aroclor 1268	ND	mg/kg	<0.0373	<0.0348	<0.0346	<0.0358	<0.0338	--	--	--	--	--
Total PCBs	7.54	mg/kg	0.0985	0.358	0.0966	ND	ND	--	--	--	--	--
Total Petroleum Hydrocarbons												
1,1,1,2-Tetrachloroethane	ND	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
1,1,1-Trichloroethane	ND	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ND	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
1,1,2-Trichloroethane	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
1,1-Dichloroethane	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
1,1-Dichloroethene	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
1,1-Dichloropropene	ND	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
Volatile Organic Compounds												

TABLE 2
 MAIN SITE, UTILITY, AND FORMER RETAIL PARCEL ANALYTICAL TEST RESULTS

Encore Boston Harbor
 One Broadway
 Everett, Massachusetts

Analyte	Maximum Reported Concentration All Samples in List	Precharacterization Cell Sample ID Laboratory Work Order Sampling Date	R5	R6	R7	R8	R9	R21_TCLP_S1	R21_TCLP_S3	R21_TCLP_S4	R21_TCLP_S5	R21_TCLP_S7
			RS 3.3-6.6' L1822649/L1823685 6/15/2018	R6 0-3.3' L1822449/L1823433 6/14/2018	R7 0-6.6' L1822651/L1823686 6/15/2018	R8 0-6.6' L1822449/L1823433 6/14/2018	R9 0-6.6' L1822850 6/18/2018	TCLP DELINEATION S1 L1827069 7/10/2018	TCLP DELINEATION S3 L1826062 7/10/2018	TCLP DELINEATION S4 L1826062 7/10/2018	TCLP DELINEATION S5 L1826062 7/10/2018	TCLP DELINEATION S7 L1826062 7/10/2018
1,2,3-Trichlorobenzene	0.016	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
1,2,3-Trichloropropane	ND	ug/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
1,2,4-Trichlorobenzene	0.085	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
1,2,4-Trimethylbenzene	ND	ug/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
1,2-Dibromo-3-chloropropane	ND	ug/kg	<0.0022	<0.0024	<0.0024	<0.0021	<0.0022	--	--	--	--	--
1,2-Dibromoethane	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
1,2-Dichlorobenzene	ND	ug/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
1,2-Dichloroethane	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
1,2-Dichloropropane	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
1,3,5-Trimethylbenzene	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
1,3-Dichlorobenzene	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
1,3-Dichloropropane	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
1,4-Dichlorobenzene	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
1,4-Dioxane	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
2,2-Dichloropropane	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
2-Butanone	0.015	mg/kg	<0.0074	<0.0078	<0.008	<0.007	<0.0073	--	--	--	--	--
2-Hexanone	ND	mg/kg	<0.0074	<0.0078	<0.008	<0.007	<0.0073	--	--	--	--	--
4-Methyl-2-pentanone	ND	mg/kg	<0.0074	<0.0078	<0.008	<0.007	<0.0073	--	--	--	--	--
Acetone	0.094	mg/kg	<0.0074	<0.0078	0.013	0.025	<0.0073	--	--	--	--	--
Benzene	0.00083	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
Bromobenzene	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Bromochloromethane	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Bromodichloromethane	ND	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
Bromoform	ND	mg/kg	<0.003	<0.0031	<0.0032	<0.0028	<0.0029	--	--	--	--	--
Bromomethane	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Carbon disulfide	ND	mg/kg	<0.0074	<0.0078	<0.008	<0.007	<0.0073	--	--	--	--	--
Carbon tetrachloride	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
Chlorobenzene	ND	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
Chloroethane	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Chloroform	ND	mg/kg	<0.0011	<0.0012	<0.0012	<0.001	<0.0011	--	--	--	--	--
Chloromethane	0.0069	mg/kg	<0.003	<0.0031	<0.0032	<0.0028	<0.0029	--	--	--	--	--
cis-1,2-Dichloroethene	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
cis-1,3-Dichloropropene	ND	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
Dibromochloromethane	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
Dibromomethane	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Dichlorodifluoromethane	ND	mg/kg	<0.0074	<0.0078	<0.008	<0.007	<0.0073	--	--	--	--	--
Diethyl ether	0.0069	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Di-isopropyl ether	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Ethyl tertiary-butyl ether	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Ethylbenzene	0.003	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
Hexachlorobutadiene	ND	mg/kg	<0.003	<0.0031	<0.0032	<0.0028	<0.0029	--	--	--	--	--
Isopropylbenzene	ND	ug/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
Methyl tert-butyl ether	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Methylene chloride	ND	mg/kg	<0.0037	<0.0039	<0.004	<0.0035	<0.0036	--	--	--	--	--
Naphthalene	0.02	mg/kg	<0.003	<0.0031	<0.0032	<0.0028	<0.0029	--	--	--	--	--
n-Butylbenzene	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
n-Propylbenzene	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
o-Chlorotoluene	ND	ug/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
o-Xylene	0.0016	ug/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
p/m-Xylenes	0.0035	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
p-Chlorotoluene	ND	mg/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
p-Isopropyltoluene	0.0041	ug/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
sec-Butylbenzene	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
Styrene	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
Tert-amyl methyl ether	ND	ug/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Tert-Butylbenzene	ND	ug/kg	<0.0015	<0.0016	<0.0016	<0.0014	<0.0014	--	--	--	--	--
Tetrachloroethene	0.0078	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
Tetrahydrofuran	ND	mg/kg	<0.003	<0.0031	<0.0032	<0.0028	<0.0029	--	--	--	--	--
Toluene	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
trans-1,2-Dichloroethene	ND	mg/kg	<0.0011	<0.0012	<0.0012	<0.001	<0.0011	--	--	--	--	--
trans-1,3-Dichloropropene	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
Trichloroethene	0.00041	mg/kg	<0.00037	<0.00039	<0.0004	<0.00035	<0.00036	--	--	--	--	--
Trichlorofluoromethane	ND	mg/kg	<0.003	<0.0031	<0.0032	<0.0028	<0.0029	--	--	--	--	--
Vinyl chloride	ND	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
Xylenes, Total	0.0051	mg/kg	<0.00074	<0.00078	<0.0008	<0.0007	<0.00073	--	--	--	--	--
Total VOCs	0.109	mg/kg	ND	ND	0.013	0.025	ND	--	--	--	--	--
Semi-Volatile Organic Compounds												
1,2,4-Trichlorobenzene	1.6	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
1,2-Dichlorobenzene	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
1,3-Dichlorobenzene	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
1,4-Dichlorobenzene	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
2,4,5-Trichlorophenol	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
2,4,6-Trichlorophenol	ND	mg/kg	<0.22	<0.54	<0.11	<0.55	<0.1	--	--	--	--	--
2,4-Dichlorophenol	ND	mg/kg	<0.34	<0.82	<0.16	<0.83	<0.16	--	--	--	--	--
2,4-Dimethylphenol	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--

Analyte	Maximum Reported Concentration All Samples in List	Precharacterization Cell Sample ID Laboratory Work Order Sampling Date	R5	R6	R7	R8	R9	R21_TCLP_S1	R21_TCLP_S3	R21_TCLP_S4	R21_TCLP_S5	R21_TCLP_S7
			R5 3.3-6.6' L1822649/L1823685 6/15/2018	R6 0-3.3' L1822449/L1823433 6/14/2018	R7 0-6.6' L1822651/L1823686 6/15/2018	R8 0-6.6' L1822449/L1823433 6/14/2018	R9 0-6.6' L1822850 6/18/2018	TCLP DELINEATION S1 L1827069 7/10/2018	TCLP DELINEATION S3 L1826062 7/10/2018	TCLP DELINEATION S4 L1826062 7/10/2018	TCLP DELINEATION S5 L1826062 7/10/2018	TCLP DELINEATION S7 L1826062 7/10/2018
2,4-Dinitrophenol	ND	mg/kg	<1.8	<4.4	<0.85	<4.4	<0.83	--	--	--	--	--
2,4-Dinitrotoluene	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
2,6-Dinitrotoluene	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
2-Chloronaphthalene	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
2-Chlorophenol	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
2-Methylnaphthalene	2	mg/kg	<0.45	<1.1	<0.21	2	<0.21	--	--	--	--	--
2-Methylphenol	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
2-Nitrophenol	ND	mg/kg	<0.81	<2	<0.38	<2	<0.37	--	--	--	--	--
3,3'-Dichlorobenzidine	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
3-Methylphenol/4-Methylphenol	ND	mg/kg	<0.54	<1.3	<0.26	<1.3	<0.25	--	--	--	--	--
4-Bromophenyl phenyl ether	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
4-Chloroaniline	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
4-Nitrophenol	ND	mg/kg	<0.53	<1.3	<0.25	<1.3	<0.24	--	--	--	--	--
Acenaphthene	8.6	mg/kg	0.8	<0.73	0.32	8.6	<0.14	--	--	--	--	--
Acenaphthylene	2.7	mg/kg	<0.3	<0.73	0.23	<0.74	<0.14	--	--	--	--	--
Acetophenone	0.54	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
Aniline	ND	mg/kg	<0.45	<1.1	<0.21	<1.1	<0.21	--	--	--	--	--
Anthracene	25	mg/kg	1.9	1.1	1	25	<0.1	--	--	--	--	--
Azobenzene	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
Benzo(a)anthracene	25	mg/kg	3.4	2.5	2.2	25	0.14	--	--	--	--	--
Benzo(a)pyrene	18	mg/kg	2.5	1.7	1.9	18	<0.14	--	--	--	--	--
Benzo(b)fluoranthene	23	mg/kg	3.2	2.4	2.4	23	0.15	--	--	--	--	--
Benzo(ghi)perylene	12	mg/kg	1.5	1.3	1.1	9.4	<0.14	--	--	--	--	--
Benzo(k)fluoranthene	6.9	mg/kg	0.88	0.73	0.76	6.3	<0.1	--	--	--	--	--
Bis(2-chloroethoxy)methane	ND	mg/kg	<0.41	<0.98	<0.19	<0.99	<0.19	--	--	--	--	--
Bis(2-chloroethyl)ether	ND	mg/kg	<0.34	<0.82	<0.16	<0.83	<0.16	--	--	--	--	--
Bis(2-chloroisopropyl)ether	ND	mg/kg	<0.45	<1.1	<0.21	<1.1	<0.21	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	9.2	mg/kg	<0.38	<0.91	<0.18	<0.92	0.95	--	--	--	--	--
Butyl benzyl phthalate	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
Chrysene	22	mg/kg	2.9	2.2	2	22	0.14	--	--	--	--	--
Dibenzo(a,h)anthracene	3	mg/kg	0.38	<0.54	0.29	3	<0.1	--	--	--	--	--
Dibenzofuran	7.5	mg/kg	0.42	<0.91	0.23	7.5	<0.17	--	--	--	--	--
Diethyl phthalate	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
Dimethylphthalate	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
Di-n-butylphthalate	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
Di-n-octyl phthalate	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
Fluoranthene	52	mg/kg	8.4	4.8	4.2	52	0.28	--	--	--	--	--
Fluorene	9.7	mg/kg	0.76	<0.91	0.32	9.7	<0.17	--	--	--	--	--
Hexachlorobenzene	ND	mg/kg	<0.22	<0.54	<0.11	<0.55	<0.1	--	--	--	--	--
Hexachlorobutadiene	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
Hexachloroethane	ND	mg/kg	<0.3	<0.73	<0.14	<0.74	<0.14	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	13	mg/kg	1.6	1.3	1.2	12	<0.14	--	--	--	--	--
Isophorone	ND	mg/kg	<0.34	<0.82	<0.16	<0.83	<0.16	--	--	--	--	--
Naphthalene	2.4	mg/kg	<0.38	<0.91	0.23	1.4	<0.17	--	--	--	--	--
Nitrobenzene	ND	mg/kg	<0.34	<0.82	<0.16	<0.83	<0.16	--	--	--	--	--
Pentachlorophenol	ND	mg/kg	<0.75	<1.8	<0.36	<1.8	<0.35	--	--	--	--	--
Phenanthrene	59	mg/kg	7.4	3.7	3.1	59	0.17	--	--	--	--	--
Phenol	ND	mg/kg	<0.38	<0.91	<0.18	<0.92	<0.17	--	--	--	--	--
Pyrene	43	mg/kg	7.4	4.2	3.8	43	0.3	--	--	--	--	--
Pyridine	ND	mg/kg	<0.41	<0.98	<0.19	<0.99	<0.19	--	--	--	--	--
Total SVOCs	326.9	mg/kg	43.44	25.93	25.28	326.9	2.13	--	--	--	--	--
Classical Chemistry												
Conductivity	2200	umhos/cm	81	510	280	160	280	--	--	--	--	--
Corrosivity (pH)	6.3-10	SU	8.4	7.6	9.3	7.9	9.6	--	--	--	--	--
Flashpoint	>150	deg f	>150	>150	>150	>150	>150	--	--	--	--	--
Ignitability	N.I.	none	N.I.	N.I.	N.I.	N.I.	N.I.	--	--	--	--	--
Reactive Cyanide	ND	mg/kg	< 10	< 10	< 10	< 10	< 10	--	--	--	--	--
Reactive Sulfide	ND	mg/kg	< 10	< 10	< 10	< 10	< 10	--	--	--	--	--

TABLE 3
GROUNDWATER ANALYTICAL TEST RESULTS
 Encore Boston Harbor
 One Broadway
 Everett, Massachusetts

Location name:	MW-601	MW-601	MW-602	MW-602	MW-603	MW-603	MW-604	MW-604	MW-605	MW-605	MW-606	MW-606
Sample ID:	MW-601	MW-601	MW-602	MW-602	MW-603	MW-603	MW-604	MW-604	MW-605	MW-605	MW-606	MW-606
Screen Interval (ft bgs):	4-19	4-19	4-19	4-19	4-14	4-14	5-15	5-15	5-15	5-15	5-15	5-15
Sample Date:	2/15/18	4/24/18	2/15/18	4/24/18	2/15/18	4/24/18	2/15/18	4/24/18	2/15/18	4/24/18	2/15/18	4/24/18
Analyte												
Dissolved Metals												
Arsenic	<5	19.1	6.4	149	26.3	736	3870	6,030	13	16.1	12.6	65.6
Barium	53	25	75	34	76	47	108	95	91	36	72	46
Cadmium	17	12	12	10	<4	<4	<4	<4	18	<4	6	39
Chromium	<10	98	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Lead	59	32	<10	26	<10	<10	<10	<10	21	<10	<10	38
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Selenium	17	23	32	46	15	31	41	110	21	<10	14	40
Silver	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	9
pH	3.4	3	4.2	4	9.2	8.2	9.4	8.9	5.8	5.9	6.3	5.9

Notes:

1. All results in units of ug/L, except pH, which is in standard units.

TABLE 4
CONCENTRATED FLOW OF TIDAL FLUX WATER TEST RESULTS
 Encore Boston Harbor
 One Broadway
 Everett, Massachusetts

CLIENT SAMPLE ID	RUNNEL_SOUTH_PENINSULA_5_16_1
SAMPLING DATE	16-MAY-18
LAB SAMPLE ID	L1817926-01
MCP Total Metals	
Antimony	<50
Arsenic	6.5
Cadmium	<4
Chromium	<10
Copper	21
Iron	151
Lead	<10
Mercury	<0.2
Nickel	<25
Selenium	<10
Silver	<7
Vanadium	<10
Zinc	78

Notes:

1. All results in units of ug/L.

Table 5: Roadway Improvement Soil Analytical

Parameter	Reportable Concentrations		MA COMM-97 Disposal Criteria		A0	Area 1	Area 2	Area 3	Area 4
	RCS-1	RCS-2	Unlined	Lined					
Sampling Date					4/5/2018	2/27/2018	2/27/2018	2/27/2018	2/27/2018
Soil Classification						unlined	Saugus		
ACPI4 Metals					MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY
ANTIMONY	20	30		~	ND (0.80)	ND (0.75)	ND (0.79)	20.3 (0.75)	ND (0.74)
ARSENIC	20	20	40	40	5.87 (0.80)	5.02 (0.75)	5.37 (0.79)	13.0 (0.75)	12.9 (0.74)
BARIUM	1000	3000	~	~	130 (0.40)	60.6 (0.38)	114 (0.40)	123 (0.38)	187 (0.37)
BERYLLIUM	90	200		~	ND (0.40)	0.40 (0.38)	0.65 (0.40)	0.65 (0.38)	0.69 (0.37)
CADMIUM	70	100	30	80	4.33 (0.40)	3.54 (0.38)	4.13 (0.40)	3.27 (0.38)	2.87 (0.37)
CHROMIUM	100	200	1000	1000	27.3 (0.40)	22.9 (0.38)	32.8 (0.40)	20.0 (0.38)	16.8 (0.37)
LEAD	200	600	1000	2000	82.7 (0.40)	37.9 (0.38)	88.2 (0.40)	699 (0.38)	238 (0.37)
MERCURY	20	30	10	10	0.154 (0.083)	0.090 (0.075)	0.161 (0.077)	0.201 (0.072)	0.224 (0.078)
NICKEL	600	1000		~	19.1 (0.40)	14.6 (0.38)	23.1 (0.40)	19.5 (0.38)	15.0 (0.37)
SELENIUM	400	700	~	~	ND (0.80)	ND (0.75)	ND (0.79)	23.6 (0.75)	ND (0.74)
SILVER	100	200	~	~	ND (0.40)	ND (0.38)	ND (0.40)	ND (0.38)	ND (0.37)
THALLIUM	8	60	~	~	ND (0.161)	0.163 (0.152)	0.246 (0.159)	0.240 (0.152)	0.190 (0.150)
VANADIUM	400	700	~	~	46.0 (0.40)	35.6 (0.38)	51.1 (0.40)	53.7 (0.38)	37.1 (0.37)
ZINC	1000	3000	~	~	129 (1.6)	68.1 (1.5)	123 (1.6)	246 (1.5)	162 (1.5)
TCCLP Metals								MG/L	MG/L
LEAD								0.037 (0.025)	0.050 (0.025)
Pesticides/Herbicides					MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY
1,4'-DDD	8	40	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	0.00259 (0.00188)	0.00320 (0.00193)
1,4'-DDE	6	30	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	0.00382 (0.00193)
1,4'-DDT	6	30	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	0.00332 (0.00188)	0.0119 (0.00193)
ALDRIN	0.08	0.5	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
ALPHA-BHC	50	500	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
ALPHA-CHLORDANE	5	30	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
BETA-BHC	10	100	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
CHLORDANE	5	30	~	~	ND (0.00194)	ND (0.0193)	ND (0.0203)	ND (0.0188)	ND (0.0193)
DELTA-BHC	10	100	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
DIELDRIN	0.08	0.5	~	~	ND (0.0194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
ENDOSULFAN I	0.5	1	~	~	ND (0.00388)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
ENDOSULFAN II	0.5	1	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
ENDOSULFAN SULFATE	~	~	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
ENDRIN	10	20	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
ENDRIN ALDEHYDE	~	~	~	~	ND (0.00388)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
ENDRIN KETONE	~	~	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
GAMMA-BHC (LINDANE)	0.003	0.5	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
GAMMA-CHLORDANE	5	30	~	~	ND (0.00388)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
HEPTACHLOR	0.3	2	~	~	ND (0.00388)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
HEPTACHLOR EPOXIDE	0.1	0.9	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
METHOXYCHLOR	200	400	~	~	ND (0.00194)	ND (0.00193)	ND (0.00203)	ND (0.00188)	ND (0.00193)
TOXAPHENE	~	~	~	~	ND (0.0194)	ND (0.0193)	ND (0.0203)	ND (0.0188)	ND (0.0193)
PCBs					MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY
PCB 1016	1	4	~	~	ND (0.107)	ND (0.111)	ND (0.119)	ND (0.114)	ND (0.114)
PCB 1221	1	4	~	~	ND (0.107)	ND (0.111)	ND (0.119)	ND (0.114)	ND (0.114)
PCB 1232	1	4	~	~	ND (0.107)	ND (0.111)	ND (0.119)	ND (0.114)	ND (0.114)
PCB 1242	1	4	~	~	ND (0.107)	ND (0.111)	ND (0.119)	ND (0.114)	ND (0.114)
PCB 1248	1	4	~	~	ND (0.107)	ND (0.111)	ND (0.119)	ND (0.114)	ND (0.114)
PCB 1254	1	4	~	~	ND (0.107)	ND (0.111)	ND (0.119)	ND (0.114)	ND (0.114)
PCB 1260	1	4	~	~	ND (0.107)	ND (0.111)	ND (0.119)	ND (0.114)	ND (0.114)
PCB 1262	1	4	~	~	ND (0.107)	ND (0.111)	ND (0.119)	ND (0.114)	ND (0.114)
PCB 1268	1	4	~	~	ND (0.107)	ND (0.111)	ND (0.119)	ND (0.114)	ND (0.114)
Total PCBs	1	4	2	2	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons					MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY
TPH	1000	3000	2500	5000	263 (31)	158 (31)	302 (33)	349 (31)	226 (31)

Table 3: Roadway Improvement Soil Analytical

Parameter	Reportable Concentrations		MA COMM-97 Disposal Criteria		AO	Area 1	Area 2	Area 3	Area 4
	RCS-1	RCS-2	Unlined	Lined					
Volatile Organic Compounds					MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY
1,1,1,2-TETRACHLOROETHANE	~	~	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
1,1,1-TRICHLOROETHANE	30	600	~	~	NO (0.005)	ND (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
1,1,2,2-TETRACHLOROETHANE	~	~	~	~	NO (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
1,1,2-TRICHLOROETHANE	0.1	2	~	~	NO (0.005)	NO (0.003)	NO (0.004)	ND (0.003)	NO (0.066)
1,1-DICHLOROETHANE	0.4	9	~	~	NO (0.005)	ND (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
1,1-DICHLOROETHENE	0	0	~	~	ND (0.005)	NO (0.003)	ND (0.004)	NO (0.003)	NO (0.066)
1,1-DICHLOROPROPENE	0.01	0.1	~	~	ND (0.005)	NO (0.003)	ND (0.004)	NO (0.003)	NO (0.066)
1,2,3-TRICHLOROBENZENE	~	~	~	~	NO (0.005)	NO (0.003)	ND (0.004)	NO (0.003)	ND (0.066)
1,2,3-TRICHLOROPROPANE	100	1000	~	~	NO (0.005)	NO (0.003)	ND (0.004)	NO (0.003)	NO (0.066)
1,2,4-TRICHLOROBENZENE	2	6	~	~	NO (0.005)	ND (0.003)	NO (0.004)	NO (0.003)	ND (0.066)
1,2,4-TRIMETHYLBENZENE	1000	10000	~	~	ND (0.005)	0.067 (0.003)	NO (0.004)	ND (0.003)	NO (0.066)
1,2-DIBROMO-3-CHLOROPROPANE	10	100	~	~	ND (0.005)	NO (0.003)	NO (0.004)	ND (0.003)	NO (0.066)
1,2-DIBROMOETHANE (EDB)	0.1	0.1	~	~	NO (0.005)	NO (0.003)	ND (0.004)	NO (0.003)	NO (0.066)
1,2-DICHLOROBENZENE	9	100	~	~	NO (0.005)	ND (0.003)	NO (0.004)	ND (0.003)	NO (0.066)
1,2-DICHLOROETHANE	0.1	0.1	~	~	ND (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
1,2-DICHLOROPROPANE	0.1	0.1	~	~	NO (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
1,3,5-TRIMETHYLBENZENE	10	100	~	~	NO (0.005)	0.012 (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
1,3-DICHLOROBENZENE	3	200	~	~	NO (0.005)	ND (0.003)	NO (0.004)	ND (0.003)	NO (0.066)
1,3-DICHLOROPROPANE	500	5000	~	~	ND (0.005)	NO (0.003)	NO (0.004)	ND (0.003)	ND (0.066)
1,4-DICHLOROBENZENE	0.7	1	~	~	NO (0.005)	NO (0.003)	NO (0.004)	ND (0.003)	ND (0.066)
1,4-DIOXANE	0.2	6	~	~	NO (0.090)	NO (0.069)	ND (0.084)	NO (0.063)	NO (33.1)
2,2-DICHLOROPROPANE	0.1	0.2	~	~	ND (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	ND (0.066)
2-BUTANONE (MEK)	4	50	~	~	NO (0.005)	NO (0.003)	ND (0.004)	NO (0.003)	ND (0.331)
2-CHLOROTOLUENE	100	1000	~	~	NO (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
2-HEXANONE	100	1000	~	~	NO (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	ND (0.331)
4-CHLOROTOLUENE	100	1000	~	~	ND (0.005)	NO (0.003)	NO (0.004)	ND (0.003)	ND (0.066)
4-METHYL-2-PENTANONE (MIBK)	0.4	50	~	~	NO (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	ND (0.331)
ACETONE	6	50	~	~	NO (0.036)	0.070 (0.017)	NO (0.013)	NO (0.016)	NO (0.331)
BENZENE	2	200	~	~	ND (0.005)	NO (0.003)	NO (0.004)	ND (0.003)	NO (0.066)
BROMOBENZENE	100	1000	~	~	NO (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
BROMOCHLOROMETHANE	~	~	~	~	NO (0.005)	NO (0.003)	NO (0.004)	ND (0.003)	ND (0.066)
BROMODICHLOROMETHANE	0.1	0.1	~	~	ND (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
BROMOFORM	0.1	1	~	~	NO (0.005)	ND (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
BROMOMETHANE	0.5	0.5	~	~	ND (0.005)	ND (0.003)	NO (0.004)	ND (0.003)	ND (0.066)
CARBON DISULFIDE	100	1000	~	~	NO (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	ND (0.066)
CARBON TETRACHLORIDE	5	0.5	~	~	ND (0.005)	NO (0.003)	ND (0.004)	NO (0.003)	ND (0.066)
CHLOROBENZENE	1	3	~	~	NO (0.005)	ND (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
CHLORODIBROMOMETHANE	0.005	0.03	~	~	ND (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
CHLOROETHANE	100	1000	~	~	ND (0.005)	NO (0.003)	ND (0.004)	NO (0.003)	ND (0.066)
CHLOROFORM	0.2	0.2	~	~	NO (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
CHLOROMETHANE	100	1000	~	~	ND (0.005)	ND (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
CIS-1,2-DICHLOROETHYLENE	0.1	0.1	~	~	ND (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	ND (0.066)
CIS-1,3-DICHLOROPROPENE	0.01	0.1	~	~	ND (0.005)	NO (0.003)	ND (0.004)	NO (0.003)	ND (0.066)
DIBROMOMETHANE	500	5000	~	~	NO (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	ND (0.066)
DICHLOROFLUOROMETHANE	1000	10000	~	~	ND (0.005)	ND (0.003)	NO (0.004)	NO (0.003)	NO (0.066)
DIETHYL ETHER	100	1000	~	~	ND (0.005)	NO (0.003)	NO (0.004)	NO (0.003)	NO (0.331)
DIISOPROPYL ETHER	100	1000	~	~	ND (0.005)	NO (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
ETHYLBENZENE	40	1000	~	~	ND (0.005)	0.014 (0.003)	0.005 (0.004)	ND (0.003)	NO (0.066)
HEXACHLOROBUTADIENE	30	100	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
ISOPROPYLBENZENE	1000	10000	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
M/P-XYLENE	100	100	~	~	ND (0.009)	0.035 (0.007)	ND (0.008)	ND (0.006)	ND (0.132)
METHYL TERT-BUTYL ETHER (MTBE)	0.1	100	~	~	ND (0.005)	0.010 (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
METHYLENE CHLORIDE	0.1	20	~	~	ND (0.005)	ND (0.017)	ND (0.013)	ND (0.016)	ND (0.066)
NAPHTHALENE	4	20	~	~	0.011 (0.005)	ND (0.028)	ND (0.013)	ND (0.025)	ND (0.066)
N-BUTYLBENZENE	~	~	~	~	0.005 (0.005)	0.007 (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
N-PROPYLBENZENE	100	1000	~	~	ND (0.005)	0.008 (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
O-XYLENE	100	100	~	~	ND (0.005)	0.004 (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
P-ISOPROPYLTOLUENE	100	1000	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
SEC-BUTYLBENZENE	~	~	~	~	0.010 (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
STYRENE	3	4	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
TERT-AMYLMETHYL ETHER	~	~	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
TERT-BUTYL ALCOHOL	~	~	~	~	ND (0.005)	0.014 (0.003)	ND (0.004)	ND (0.003)	ND (0.331)
TERT-BUTYLBENZENE	100	1000	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
TERT-BUTYLETHYL ETHER	~	~	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
TETRACHLOROETHYLENE	1	10	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
TETRAHYDROFURAN	500	5000	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.331)
TOLUENE	30	1000	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
TRANS-1,2-DICHLOROETHYLENE	1	1	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
TRANS-1,3-DICHLOROPROPENE	0.01	0.1	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
TRICHLOROETHYLENE	0.3	0.3	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
TRICHLOROFLUOROMETHANE	1000	10000	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
VINYL CHLORIDE	0.7	0.7	~	~	ND (0.005)	ND (0.003)	ND (0.004)	ND (0.003)	ND (0.066)
Total VOCs	~	~	4	10	0.026	0.241	0.005	ND	ND

Table 5: Roadway Improvement Soil Analytical

Encore Casino Site Entrance
SES Project 18-0153

Parameter	Reportable Concentrations		MA COMM-97 Disposal Criteria		AO	Area 1	Area 2	Area 3	Area 4
	RCS-1	RCS-2	Unlined	Lined					
Seml-Volatile Organic Compounds			~	~	MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY	MG/KG DRY
1,2,4-TRICHLOROENZENE	2	6	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
1,2-DICHLOROBENZENE	9	100	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
1,3-DICHLOROBENZENE	3	200	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
1,4-DICHLOROBENZENE	D.7	1	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
1,2-OXYBIS(2-CHLOROPROPANE)	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
1,4,5-TRICHLOROPHENOL	4	600	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
1,4,6-TRICHLOROPHENOL	D.7	20	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
2,4-DICHLOROPHENOL	0.7	40	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
2,4-DIMETHYLPHENOL	0.7	100	~	~	ND (0.390)	ND (0.382)	ND (0.401)	ND (0.368)	ND (0.374)
2,4-DINITROPHENOL	3	50	~	~	ND (0.390)	ND (0.382)	ND (0.401)	ND (0.368)	ND (0.374)
2,4-DINITROTOLUENE	0.7	10	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
2,6-DINITROTOLUENE	100	1000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
1-CHLORONAPHTHALENE	1000	10000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
2-CHLOROPHENOL	0.7	100	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
2-METHYLNAPHTHALENE	0.7	80	~	~	ND (0.154)	ND (0.150)	ND (0.158)	0.199 (0.145)	ND (0.147)
2-NITROANILINE	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
2-NITROPHENOL	100	1000	~	~	ND (0.390)	ND (0.382)	ND (0.401)	ND (0.368)	ND (0.374)
3,3'-DICHLOROBENZIDINE	3	20	~	~	ND (0.390)	ND (0.382)	ND (0.401)	ND (0.368)	ND (0.374)
3-NITROANILINE	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
4,6-DINITRO-2-METHYLPHENOL	~	~	~	~	ND (0.390)	ND (0.382)	ND (0.401)	ND (0.368)	ND (0.374)
4-BROMOPHENYL PHENYL ETHER	100	1000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
4-CHLORO-3-METHYLPHENOL	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
3-CHLOROANILINE	1	3	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
3-CHLOROPHENYL ETHER	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
3-NITROANILINE	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
4-NITROPHENOL	100	1000	~	~	ND (0.390)	ND (0.382)	ND (0.401)	ND (0.368)	ND (0.374)
ACENAPHTHENE	4	3000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	0.485 (0.145)	ND (0.147)
ACENAPHTHYLENE	1	10	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
ANILINE	1000	10000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
ANTHRACENE	1000	3000	~	~	ND (0.154)	ND (0.150)	0.361 (0.158)	1.04 (0.145)	ND (0.147)
BENZO(A)ANTHRACENE	7	40	~	~	0.445 (0.154)	ND (0.150)	1.15 (0.158)	1.46 (0.145)	0.481 (0.147)
BENZO(A)PYRENE	2	7	~	~	0.440 (0.154)	ND (0.150)	1.09 (0.158)	1.19 (0.145)	0.432 (0.147)
BENZO(B)FLUORANTHENE	7	40	~	~	0.626 (0.154)	0.170 (0.150)	1.39 (0.158)	1.53 (0.145)	0.651 (0.147)
BENZO(G,H,I)PERYLENE	1000	3000	~	~	0.328 (0.154)	ND (0.150)	0.685 (0.158)	0.695 (0.145)	0.299 (0.147)
BENZO(K)FLUORANTHENE	70	400	~	~	0.217 (0.154)	ND (0.150)	0.470 (0.158)	0.544 (0.145)	D.218 (0.147)
BENZOIC ACID	~	~	~	~	ND (1.18)	ND (1.16)	ND (1.21)	ND (0.145)	ND (1.13)
BIS(2-CHLOROETHOXY)METHANE	500	5000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
BIS(2-CHLOROETHYL)ETHER	0.7	0.7	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
BIS(2-ETHYLHEXYL)PHthalate	90	600	~	~	ND (0.473)	ND (0.463)	ND (0.486)	ND (0.446)	ND (0.454)
BUTYLBENZYLPHthalate	100	1000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
CHRYSENE	70	400	~	~	0.530 (0.154)	ND (0.150)	1.12 (0.158)	1.47 (0.145)	0.519 (0.147)
DIBENZO(A,H)ANTHRACENE	0.7	4	~	~	ND (0.154)	ND (0.150)	0.189 (0.158)	0.215 (0.145)	ND (0.147)
DIBENZOFURAN	100	1000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	0.378 (0.145)	ND (0.147)
DIETHYLPHthalate	10	200	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
DIMETHYLPHthalate	~	~	~	~	ND (0.390)	ND (0.382)	ND (0.401)	ND (0.368)	ND (0.374)
DI-N-BUTYLPHthalate	50	500	~	~	ND (0.236)	ND (0.231)	ND (0.243)	ND (0.223)	ND (0.227)
DI-N-OCTYLPHthalate	1000	10000	~	~	ND (0.236)	ND (0.231)	ND (0.243)	ND (0.223)	ND (0.227)
FLUORANTHENE	1000	3000	~	~	0.903 (0.154)	0.274 (0.150)	2.22 (0.158)	3.03 (0.145)	0.843 (0.147)
FLUORENE	1000	3000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	0.478 (0.145)	ND (0.147)
HEXACHLOROBENZENE	0.7	D.8	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
HEXACHLOROBTADIENE	30	100	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
HEXACHLOROCYCLOPENTADIENE	~	~	~	~	ND (0.390)	ND (0.382)	ND (0.401)	ND (0.368)	ND (0.374)
HEXACHLOROETHANE	0.7	3	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
INDENO(1,2,3-CD)PYRENE	7	40	~	~	0.333 (0.154)	ND (0.150)	0.718 (0.158)	0.739 (0.145)	0.308 (0.147)
ISOPHORONE	100	1000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
M/P-CRESOL	500	5000	~	~	ND (0.307)	ND (0.301)	ND (0.316)	ND (0.290)	ND (0.295)
NAPHTHALENE	4	20	~	~	0.165 (0.154)	ND (0.150)	ND (0.158)	0.255 (0.145)	ND (0.147)
NITROBENZENE	500	5000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
N-NITROSODIMETHYLAMINE	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
N-NITROSO-DI-N-PROPYLAMINE	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
N-NITROSODIPHENYLAMINE	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
O-CRESOL	500	5000	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
PENTACHLOROPHENOL	3	10	~	~	ND (0.390)	ND (0.382)	ND (0.401)	ND (0.368)	ND (0.374)
PHENANTHRENE	10	1000	~	~	0.586 (0.154)	D.163 (0.150)	1.36 (0.158)	3.71 (0.145)	D.463 (0.147)
PHENOL	1	20	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
PYRENE	1000	3000	~	~	D.932 (0.154)	0.314 (0.150)	2.39 (0.158)	3.55 (0.145)	D.966 (0.147)
PYRIDINE	~	~	~	~	ND (0.154)	ND (0.150)	ND (0.158)	ND (0.145)	ND (0.147)
Total SVOCs	~	~	100	100	5.505	0.921	13.143	20.968	5.18
Flash Point (deg F)	~	~	~	~	>200	>200	>200	>200	>200
pH (SU)	~	~	~	~	8.1	7.8	7.8	7.1	7.6
Reactivity - Cyanide (mg/kg)	~	~	~	~	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)
Reactivity - Sulfide (mg/kg)	~	~	~	~	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Specific Conductance (umhos/cm)	~	~	40DD	80DD	105 (2.0)	304 (2.0)	214 (2.0)	97.8 (2.0)	95.1 (2.0)

NOTES:

ND = Not detected above the lab reporting limits shown in parenthesis.

NT = Not tested.

Bolted values exceed an MCP Reportable Concentration (RC).

~ = No Standard or Criteria

Parameter	Reportable Concentrations		MA COMM-97 Disposal Criteria		A5	A6	A7
	RCS-1	RCS-2	Unlined	Lined			
Sampling Date					3/27/2018	3/27/2018	3/27/2018
Soil Classification							
MCP14 Metals					MG/KG DRY	MG/KG DRY	MG/KG DRY
ANTIMONY	20	30	~	~	ND (0.78)	ND (0.74)	ND (0.72)
ARSENIC	20	20	40	40	22.7 (0.78)	6.89 (0.74)	6.27 (0.72)
BARIUM	1000	3000	~	~	161 (0.39)	98.5 (0.37)	177 (0.36)
BERYLLIUM	90	200	~	~	ND (0.39)	ND (0.37)	ND (0.36)
CADMIUM	70	100	30	80	7.04 (0.39)	2.88 (0.37)	2.81 (0.36)
CHROMIUM	100	200	1000	1000	13.4 (0.39)	17.7 (0.37)	15.7 (0.36)
LEAD	200	600	1000	2000	200 (0.39)	347 (0.37)	236 (0.36)
MERCURY	20	30	10	10	0.395 (0.079)	0.439 (0.077)	0.459 (0.076)
NICKEL	600	1000	~	~	9.47 (0.39)	13.8 (0.37)	14.3 (0.36)
SELENIUM	400	700	~	~	ND (0.78)	ND (0.74)	ND (0.72)
SILVER	100	200	~	~	ND (0.39)	ND (0.37)	ND (0.36)
THALLIUM	8	60	~	~	0.172 (0.156)	ND (0.149)	ND (0.144)
VANADIUM	400	700	~	~	26.7 (0.39)	34.6 (0.37)	32.5 (0.36)
ZINC	1000	3000	~	~	1480 (1.6)	194 (1.5)	254 (1.4)
TCLP Metals					MG/L	MG/L	MG/L
LEAD					ND (0.025)	0.027 (0.025)	0.052 (0.025)
Pesticides/Herbicides					MG/KG DRY	MG/KG DRY	MG/KG DRY
4,4'-DDD	8	40	~	~	ND (0.00343)	ND (0.00365)	ND (0.00352)
4,4'-DDE	6	30	~	~	ND (0.00343)	ND (0.00365)	ND (0.00352)
4,4'-DDT	6	30	~	~	ND (0.00343)	ND (0.00365)	ND (0.00352)
ALDRIN	0.08	0.5	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
ALPHA-BHC	50	500	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
ALPHA-CHLORDANE	5	30	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
BETA-BHC	10	100	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
CHLORDANE	5	30	~	~	ND (0.0172)	ND (0.0183)	ND (0.0177)
DELTA-BHC	10	100	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
DIELDRIN	0.08	0.5	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
ENDOSULFAN I	0.5	1	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
ENDOSULFAN II	0.5	1	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
ENDOSULFAN SULFATE	~	~	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
ENDRIN	10	20	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
ENDRIN ALDEHYDE	~	~	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
ENDRIN KETONE	~	~	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
GAMMA-BHC (LINDANE)	0.003	0.5	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
GAMMA-CHLORDANE	5	30	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
HEPTACHLOR	0.3	2	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
HEPTACHLOR EPOXIDE	0.1	0.9	~	~	ND (0.00172)	ND (0.00183)	ND (0.00177)
METHOXYCHLOR	200	400	~	~	ND (0.00343)	ND (0.00365)	ND (0.00352)
TOXAPHENE	~	~	~	~	ND (0.0172)	ND (0.0183)	ND (0.0177)
PCBs					MG/KG DRY	MG/KG DRY	MG/KG DRY
PCB 1016	1	4	~	~	ND (0.103)	ND (0.110)	ND (0.106)
PCB 1221	1	4	~	~	ND (0.103)	ND (0.110)	ND (0.106)
PCB 1232	1	4	~	~	ND (0.103)	ND (0.110)	ND (0.106)
PCB 1242	1	4	~	~	ND (0.103)	ND (0.110)	ND (0.106)
PCB 1248	1	4	~	~	ND (0.103)	ND (0.110)	ND (0.106)
PCB 1254	1	4	~	~	ND (0.103)	ND (0.110)	ND (0.106)
PCB 1260	1	4	~	~	ND (0.103)	ND (0.110)	0.130 (0.106)
PCB 1262	1	4	~	~	ND (0.103)	ND (0.110)	ND (0.106)
PCB 1268	1	4	~	~	ND (0.103)	ND (0.110)	ND (0.106)
Total PCBs	1	4	2	2	ND	ND	0.13
Total Petroleum Hydrocarbons					MG/KG DRY	MG/KG DRY	MG/KG DRY
TPH	1000	3000	2500	5000	155 (29)	2610 (299)	1800 (296)

Parameter	Reportable Concentrations		MA COMM-97 Disposal Criteria		A5	A6	A7
	RCS-1	RCS-2	Unlined	Lined			
Volatile Organic Compounds					MG/KG DRY	MG/KG DRY	MG/KG DRY
1,1,1,2-TETRACHLOROETHANE	~	~	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,1,1-TRICHLOROETHANE	30	600	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,1,2,2-TETRACHLOROETHANE	~	~	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,1,2-TRICHLOROETHANE	0.1	2	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,1-DICHLOROETHANE	0.4	9	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,1-DICHLOROETHENE	0	0	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,1-DICHLOROPROPENE	0.01	0.1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,2,3-TRICHLOROBENZENE	~	~	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,2,3-TRICHLOROPROPANE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,2,4-TRICHLOROBENZENE	2	6	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,2,4-TRIMETHYLBENZENE	1000	10000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,2-DIBROMO-3-CHLOROPROPANE	10	100	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,2-DIBROMOETHANE (EDB)	0.1	0.1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,2-DICHLOROBENZENE	9	100	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,2-DICHLOROETHANE	0.1	0.1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,2-DICHLOROPROPANE	0.1	0.1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,3,5-TRIMETHYLBENZENE	10	100	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,3-DICHLOROBENZENE	3	200	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,3-DICHLOROPROPANE	500	5000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,4-DICHLOROBENZENE	0.7	1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
1,4-DIOXANE	0.2	6	~	~	ND (0.086)	ND (0.153)	ND (0.090)
2,2-DICHLOROPROPANE	0.1	0.2	~	~	ND (0.004)	ND (0.008)	ND (0.005)
2-BUTANONE (MEK)	4	50	~	~	ND (0.009)	ND (0.015)	ND (0.009)
2-CHLOROTOLUENE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
2-HEXANONE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
4-CHLOROTOLUENE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
4-METHYL-2-PENTANONE (MIBK)	0.4	50	~	~	ND (0.004)	ND (0.008)	ND (0.005)
ACETONE	6	50	~	~	ND (0.034)	ND (0.061)	ND (0.036)
BENZENE	2	200	~	~	ND (0.004)	ND (0.008)	ND (0.005)
BROMOBENZENE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
BROMOCHLOROMETHANE	~	~	~	~	ND (0.004)	ND (0.008)	ND (0.005)
BROMODICHLOROMETHANE	0.1	0.1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
BROMOFORM	0.1	1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
BROMOMETHANE	0.5	0.5	~	~	ND (0.004)	ND (0.008)	ND (0.005)
CARBON DISULFIDE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
CARBON TETRACHLORIDE	5	0.5	~	~	ND (0.004)	ND (0.008)	ND (0.005)
CHLOROBENZENE	1	3	~	~	ND (0.004)	ND (0.008)	ND (0.005)
CHLORODIBROMOMETHANE	0.005	0.03	~	~	ND (0.004)	ND (0.008)	ND (0.005)
CHLOROETHANE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
CHLOROFORM	0.2	0.2	~	~	ND (0.004)	ND (0.008)	ND (0.005)
CHLOROMETHANE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
C15-1,2-DICHLOROETHYLENE	0.1	0.1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
C15-1,3-DICHLOROPROPENE	0.01	0.1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
DIBROMOMETHANE	500	5000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
DICHLORODIFLUOROMETHANE	1000	10000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
DIETHYL ETHER	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
DIISOPROPYL ETHER	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
ETHYLBENZENE	40	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
HEXACHLOROBUTADIENE	30	100	~	~	ND (0.004)	ND (0.008)	ND (0.005)
ISOPROPYLBENZENE	1000	10000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
M/P-XYLENE	100	100	~	~	ND (0.009)	ND (0.015)	ND (0.009)
METHYL TERT-BUTYL ETHER (MTBE)	0.1	100	~	~	ND (0.004)	ND (0.008)	ND (0.005)
METHYLENE CHLORIDE	0.1	20	~	~	ND (0.004)	ND (0.008)	ND (0.005)
NAPHTHALENE	4	20	~	~	ND (0.017)	ND (0.031)	ND (0.018)
N-BUTYLBENZENE	~	~	~	~	ND (0.004)	ND (0.008)	ND (0.005)
N-PROPYLBENZENE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
O-XYLENE	100	100	~	~	ND (0.004)	ND (0.008)	ND (0.005)
P-ISOPROPYLTOLUENE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
SEC-BUTYLBENZENE	~	~	~	~	ND (0.004)	ND (0.008)	ND (0.005)
STYRENE	3	4	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TERT-AMYL METHYL ETHER	~	~	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TERT-BUTYL ALCOHOL	~	~	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TERT-BUTYLBENZENE	100	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TERT-BUTYLETHYL ETHER	~	~	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TETRACHLOROETHYLENE	1	10	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TETRAHYDROFURAN	500	5000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TOLUENE	30	1000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TRANS-1,2-DICHLOROETHYLENE	1	1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TRANS-1,3-DICHLOROPROPENE	0.01	0.1	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TRICHLOROETHYLENE	0.3	0.3	~	~	ND (0.004)	ND (0.008)	ND (0.005)
TRICHLOROFLUOROMETHANE	1000	10000	~	~	ND (0.004)	ND (0.008)	ND (0.005)
VINYL CHLORIDE	0.7	0.7	~	~	ND (0.004)	ND (0.008)	ND (0.005)
Total VOCs	~	~	4	10	ND	ND	ND

Parameter	Reportable Concentrations		MA COMM-97 Disposal Criteria		A5	A6	A7
	RCS-1	RCS-2	Unlined	Lined			
Semi-Volatile Organic Compounds					MG/KG DRY	MG/KG DRY	MG/KG DRY
1,2,4-TRICHLOROBENZENE	2	6	~	~	ND (0.137)	ND (0.689)	ND (0.287)
1,2-DICHLOROBENZENE	9	100	~	~	ND (0.137)	ND (0.689)	ND (0.287)
1,3-DICHLOROBENZENE	3	200	~	~	ND (0.137)	ND (0.689)	ND (0.287)
1,4-DICHLOROBENZENE	0.7	1	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2,2'-OXYBIS(2-CHLOROPROPANE)	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2,4,5-TRICHLOROPHENOL	4	600	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2,4,6-TRICHLOROPHENOL	0.7	20	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2,4-DICHLOROPHENOL	0.7	40	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2,4-DIMETHYLPHENOL	0.7	100	~	~	ND (0.348)	ND (1.75)	ND (0.728)
2,4-DINITROPHENOL	3	50	~	~	ND (0.348)	ND (1.75)	ND (0.728)
2,4-DINITROTOLUENE	0.7	10	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2,6-DINITROTOLUENE	100	1000	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2-CHLORONAPHTHALENE	1000	10000	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2-CHLOROPHENOL	0.7	100	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2-METHYLNAPHTHALENE	0.7	80	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2-NITROANILINE	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
2-NITROPHENOL	100	1000	~	~	ND (0.348)	ND (1.75)	ND (0.728)
3,3'-DICHLOROBENZIDINE	3	20	~	~	ND (0.348)	ND (1.75)	ND (0.728)
3-NITROANILINE	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
4,6-DINITRO-2-METHYLPHENOL	~	~	~	~	ND (0.348)	ND (1.75)	ND (0.728)
4-BROMOPHENYL PHENYL ETHER	100	1000	~	~	ND (0.137)	ND (0.689)	ND (0.287)
4-CHLORO-3-METHYLPHENOL	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
4-CHLOROANILINE	1	3	~	~	ND (0.137)	ND (0.689)	ND (0.287)
4-CHLOROPHENYL ETHER	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
4-NITROANILINE	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
4-NITROPHENOL	100	1000	~	~	ND (0.348)	ND (1.75)	ND (0.728)
ACENAPHTHENE	4	3000	~	~	ND (0.137)	ND (0.689)	0.409 (0.287)
ACENAPHTHYLENE	1	10	~	~	ND (0.137)	ND (0.689)	0.346 (0.287)
ANILINE	1000	10000	~	~	ND (0.137)	ND (0.689)	ND (0.287)
ANTHRACENE	1000	3000	~	~	0.374 (0.137)	0.996 (0.689)	1.72 (0.287)
BENZO(A)ANTHRACENE	7	40	~	~	2.03 (0.137)	3.16 (0.689)	4.47 (0.287)
BENZO(A)PYRENE	2	7	~	~	2.03 (0.137)	3.09 (0.689)	4.31 (0.287)
BENZO(B)FLUORANTHENE	7	40	~	~	2.35 (0.137)	3.69 (0.689)	5.32 (0.287)
BENZO(G,H,I)PERYLENE	1000	3000	~	~	1.33 (0.137)	1.94 (0.689)	2.81 (0.287)
BENZO(K)FLUORANTHENE	70	400	~	~	0.860 (0.137)	1.25 (0.689)	1.81 (0.287)
BENZOIC ACID	~	~	~	~	ND (1.06)	ND (5.30)	ND (2.21)
BIS(2-CHLOROETHOXY)METHANE	500	5000	~	~	ND (0.137)	ND (0.689)	ND (0.287)
BIS(2-CHLOROETHYL)ETHER	0.7	0.7	~	~	ND (0.137)	ND (0.689)	ND (0.287)
BIS(2-ETHYLHEXYL)PHTHALATE	90	600	~	~	ND (0.422)	ND (2.12)	ND (0.883)
BUTYLBENZYLPHTHALATE	100	1000	~	~	ND (0.137)	ND (0.689)	ND (0.287)
CHRYSENE	70	400	~	~	1.83 (0.137)	3.25 (0.689)	4.33 (0.287)
DIBENZ(A,H)ANTHRACENE	0.7	4	~	~	0.313 (0.137)	ND (0.689)	0.667 (0.287)
DIBENZOFURAN	100	1000	~	~	ND (0.137)	ND (0.689)	0.450 (0.287)
DIETHYLPHTHALATE	10	200	~	~	ND (0.137)	ND (0.689)	ND (0.287)
DIMETHYLPHTHALATE	~	~	~	~	ND (0.348)	ND (1.75)	ND (0.728)
DI-N-BUTYLPHTHALATE	50	500	~	~	ND (0.211)	ND (1.06)	ND (0.441)
DI-N-OCTYLPHTHALATE	1000	10000	~	~	ND (0.211)	ND (1.06)	ND (0.441)
FLUORANTHENE	1000	3000	~	~	3.12 (0.137)	5.97 (0.689)	8.30 (0.287)
FLUORENE	1000	3000	~	~	ND (0.137)	ND (0.689)	0.430 (0.287)
HEXACHLOROBENZENE	0.7	0.8	~	~	ND (0.137)	ND (0.689)	ND (0.287)
HEXACHLOROBUTADIENE	30	100	~	~	ND (0.137)	ND (0.689)	ND (0.287)
HEXACHLOROCYCLOPENTADIENE	~	~	~	~	ND (0.348)	ND (1.75)	ND (0.728)
HEXACHLOROETHANE	0.7	3	~	~	ND (0.137)	ND (0.689)	ND (0.287)
INDENO(1,2,3-CD)PYRENE	7	40	~	~	1.41 (0.137)	1.97 (0.689)	3.28 (0.287)
ISOPHORONE	100	1000	~	~	ND (0.137)	ND (0.689)	ND (0.287)
M/P-CRESOL	500	5000	~	~	ND (0.275)	ND (1.38)	ND (0.574)
NAPHTHALENE	4	20	~	~	ND (0.137)	ND (0.689)	0.530 (0.287)
NITROBENZENE	500	5000	~	~	ND (0.137)	ND (0.689)	ND (0.287)
N-NITROSODIMETHYLAMINE	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
N-NITroso-DI-N-PROPYLAMINE	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
N-NITROSODIPHENYLAMINE	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
O-CRESOL	500	5000	~	~	ND (0.137)	ND (0.689)	ND (0.287)
PENTACHLOROPHENOL	3	10	~	~	ND (0.348)	ND (1.75)	ND (0.728)
PHENANTHRENE	10	1000	~	~	1.15 (0.137)	3.78 (0.689)	6.23 (0.287)
PHENOL	1	20	~	~	ND (0.137)	ND (0.689)	ND (0.287)
PYRENE	1000	3000	~	~	3.41 (0.137)	6.21 (0.689)	7.80 (0.287)
PYRIDINE	~	~	~	~	ND (0.137)	ND (0.689)	ND (0.287)
Total SVOCs	~	~	100	100	20.207	35.306	53.212
Flash Point (deg F)	~	~	~	~	>200	>200	>200
pH (SU)	~	~	~	~	7.1	8.0	7.9
Reactivity - Cyanide (mg/kg)	~	~	~	~	ND (0.2)	ND (0.2)	ND (0.2)
Reactivity - Sulfide (mg/kg)	~	~	~	~	ND (0.1)	ND (0.1)	ND (0.1)
Specific Conductance (umhos/cm)	~	~	4000	8000	124 (2.0)	53.8 (2.0)	58.9 (2.0)

NOTES:
 ND = Not detected above the lab reporting limits shown in parenthesis.
 NT = Not tested.
 Bolded values exceed an MCP Reportable Concentration (RC).
 ~ = No Standard or Criteria



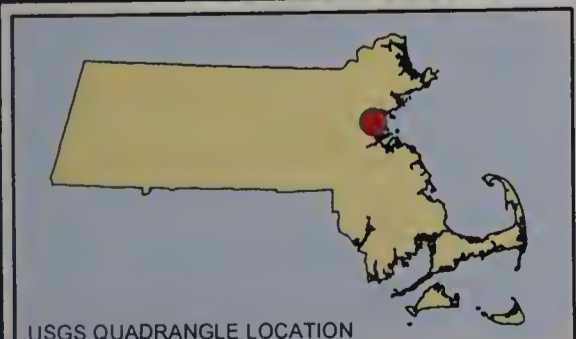


Figures

© 2017 - GZA GeoEnvironmental, Inc., J:\170,000-179,999\171521\171521-52.MPS\FIGURES\GIMXD\171521_SITE_LOCUS-FIG1.mxd, 8/24/2017, 2:58:17 PM, anthony.pungitore



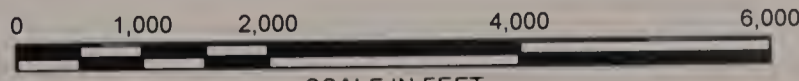
SITE



USGS QUADRANGLE LOCATION

SOURCE : THIS MAP CONTAINS THE ESRI ARCGIS ONLINE USA TOPOGRAPHIC MAP SERVICE, PUBLISHED DECEMBER 12, 2009 BY ESRI ARCGIS SERVICES AND UPDATED AS NEEDED. THIS SERVICE USES UNIFORM NATIONALLY RECOGNIZED DATUM AND CARTOGRAPHY STANDARDS AND A VARIETY OF AVAILABLE SOURCES FROM SEVERAL DATA PROVIDERS.

Data Supplied by :



SCALE IN FEET

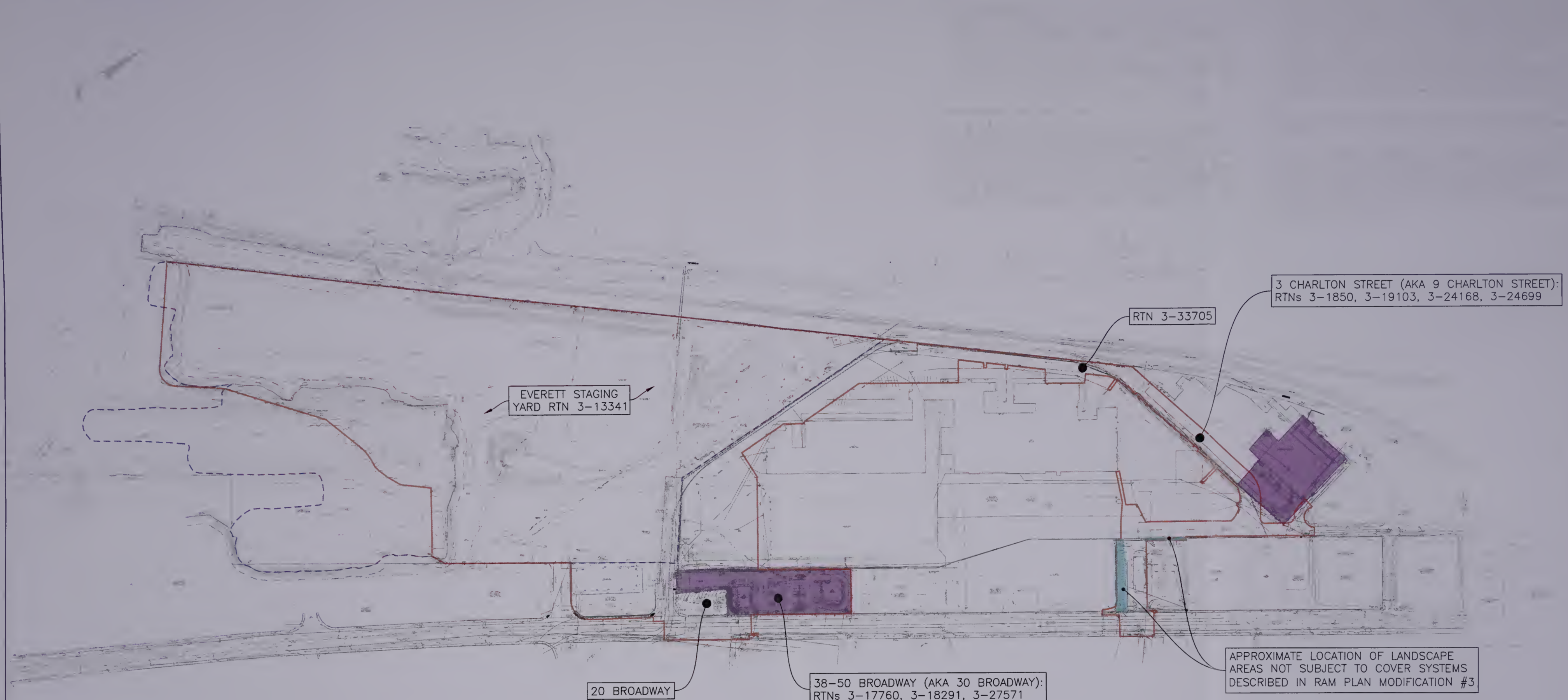


PROJ. MGR.: NJC
DESIGNED BY: NJC
REVIEWED BY: LF
OPERATOR: SMW
DATE: FEBRUARY 2018

SITE LOCUS MAP
ENCORE BOSTON HARBOR
EVERETT, MASSACHUSETTS

JOB NO.
01.0171521.52
FIGURE NO.
1

© 2016 - GZA GeoEnvironmental, Inc. GZA-... Branch Offices\01\0171521\00 Everett Land Development\Figures and CAD\Remediation CAD\RAM CAD for Vjog\Figure 2-4 - RAM Boundary.dwg [Figure 1 (0171521)] August 28, 2017 - 1:45pm joshua.zoll



LEGEND

LEGEND	
	AUL AREA (APPROXIMATE)
	FORMER EVERETT STAGING YARD DISPOSAL SITE BOUNDARY (RTN 3-13341)
	RAM PROJECT AREA BOUNDARY

- NOTES:
1. AULs ARE SHOWN ONLY ON PROPERTIES WITHIN RAM BOUNDARIES; ADDITIONAL AULs EXIST IN THE VICINITY.
 2. BASE PLAN FROM FELDMAN PROFESSIONAL LAND SURVEYORS PLAN TITLED "EXISTING CONDITIONS PLAN, BROADWAY (ROUTE 99), EVERETT, MASS." DATED MARCH 20, 2015.

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEODESIGN, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

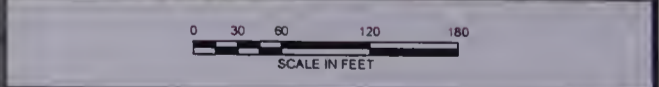
ENCORE BOSTON HARBOR ONE BROADWAY EVERETT, MASSACHUSETTS			
PROPERTIES WITHIN RAM BOUNDARY			
PREPARED BY GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR WYNN MA, LLC	
PROJ MGR: DEL	REVIEWED BY: MMS	CHECKED BY: LF	FIGURE 2
DESIGNED BY: MMS	DRAWN BY: JJZ	SCALE: AS SHOWN	
DATE: FEBRUARY 2018	PROJECT NO: 01 0171521 52	REVISION NO:	



© 2018 - GZA GeoEnvironmental, Inc. J:\170.000-175.999\171521\171521-52.MPS\FIGURES\GIS\KDA\171521_RAM_JULY2018.mxd 7/20/2018 10:40:08 PM stephen.warburton

LEGEND

- APPROXIMATE RAM BOUNDARY
- SOIL CHARACTERIZATION GRID
- SLURRY WALL TRENCH
- APPROXIMATE BUILDING FOOTPRINT



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ENCORE BOSTON HARBOR EVERETT, MA			
SITE PLAN			
PREPARED BY			
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com			
PROJ MGR	NJC	REVIEWED BY	LF
DESIGNED BY	NJC	DRAWN BY	SMW
DATE	AUGUST 2018	PROJECT NO	01 0171521.52
		CHECKED BY	NJC
		SCALE	1 INCH = 80 FT
		REVISION NO	
			FIGURE 3





Appendix A - Transmittal Form BWSC106



**RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM**

Release Tracking Number

3 - 13341

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

A. SITE LOCATION:

1. Site Name/Location Aid: EVERETT STAGING YARD

2. Street Address: 1 BROADWAY

3. City/Town: EVERETT 4. Zip Code: 021490000

5. Check here if the disposal site that is the source of the release is Tier Classified. Check the current Tier Classification Category.

- a. Tier I
- b. Tier ID
- c. Tier II

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial RAM Plan (if previously submitted): 5/3/2016
(mm dd yyyy)

2. Submit an **Initial Release Abatement Measure (RAM) Plan.**

a. Check here if the RAM is being conducted as part of the construction of a permanent structure. If checked, you must specify what type of permanent structure is to be erected in or in the immediate vicinity of the area where the RAM is to be conducted.

b. Specify type of permanent structure: (check all that apply) i. School ii. Residential iii. Commercial
 iv. Industrial v. Other Specify: _____

3. Submit a **Modified RAM Plan** of a previously submitted RAM Plan.

4. Submit a **RAM Status Report.**

5. Submit a **Remedial Monitoring Report.** (This report can only be submitted through eDEP, concurrent with a RAM Status Report.)

a. Type of Report: (check one) i. Initial Report ii. Interim Report iii. Final Report

b. Frequency of Submittal:

- i. A Remedial Monitoring Report(s) submitted every six months, concurrent with a RAM Status Report.
- ii. A Remedial Monitoring Report(s) submitted annually, concurrent with a RAM Status Report.

c. Number of Remedial Systems and/or Monitoring Programs: _____

A separate BWSC106A, RAM Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

6. Submit a **RAM Completion Statement.**

7. Submit a **Revised RAM Completion Statement.**

8. Provide Additional RTNs:

a. Check here if this RAM Submittal covers additional Release Tracking Numbers (RTNs). RTNs that have been previously linked to a Primary Tier Classified RTN do not need to be listed here. This section is intended to allow a RAM to cover more than one unclassified RTN and not show permanent linkage to a Primary Tier Classified RTN.

b. Provide the additional Release Tracking Number(s) covered by this RAM Submittal. 3 - 17760 3 - 1850

9. Include in the **RAM Plan** or **Modified RAM Plan** a **Plan for the Application of Remedial Additives** near a sensitive receptor, pursuant to 310 CMR 40.0046(3).

(All sections of this transmittal form must be filled out unless otherwise noted above)



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 13341

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT RAM:

1. Media Impacted and Receptors Affected: (check all that apply)
- | | | |
|---|--|---|
| <input type="checkbox"/> a. Paved Surface | <input type="checkbox"/> b. Basement | <input type="checkbox"/> c. School |
| <input type="checkbox"/> d. Public Water Supply | <input type="checkbox"/> e. Surface Water | <input type="checkbox"/> f. Zone 2 |
| <input type="checkbox"/> g. Private Well | <input type="checkbox"/> h. Residence | <input checked="" type="checkbox"/> i. Soil |
| <input checked="" type="checkbox"/> j. Ground Water | <input checked="" type="checkbox"/> k. Sediments | <input type="checkbox"/> l. Wetland |
| <input type="checkbox"/> m. Storm Drain | <input type="checkbox"/> n. Indoor Air | <input type="checkbox"/> o. Air |
| <input type="checkbox"/> p. Soil Gas | <input type="checkbox"/> q. Sub-Slab Soil Gas | <input type="checkbox"/> r. Critical Exposure Pathway |
| <input type="checkbox"/> s. NAPL | <input type="checkbox"/> t. Unknown | |
| <input type="checkbox"/> u. Others | Specify: _____ | |

2. Sources of the Release or TOR: (check all that apply)
- | | | |
|--|---|-------------------------------------|
| <input type="checkbox"/> a. Transformer | <input type="checkbox"/> b. Fuel Tank | <input type="checkbox"/> c. Pipe |
| <input type="checkbox"/> d. OHM Delivery | <input type="checkbox"/> e. AST | <input type="checkbox"/> f. Drums |
| <input type="checkbox"/> g. Tanker Truck | <input type="checkbox"/> h. Hose | <input type="checkbox"/> i. Line |
| <input type="checkbox"/> j. UST | Describe: _____ | <input type="checkbox"/> k. Vehicle |
| <input type="checkbox"/> l. Boat/Vessel | | |
| <input type="checkbox"/> m. Unknown | <input checked="" type="checkbox"/> n. Other: HISTORIC FILL AND MANUFACTURING | |

3. Type of Release or TOR: (check all that apply)
- | | | | |
|--|---|---|--------------------------------------|
| <input type="checkbox"/> a. Dumping | <input type="checkbox"/> b. Fire | <input type="checkbox"/> c. AST Removal | <input type="checkbox"/> d. Overfill |
| <input type="checkbox"/> e. Rupture | <input type="checkbox"/> f. Vehicle Accident | <input type="checkbox"/> g. Leak | <input type="checkbox"/> h. Spill |
| <input type="checkbox"/> i. Test Failure | <input type="checkbox"/> j. TOR Only | | |
| <input type="checkbox"/> k. UST Removal | Describe: _____ | | |
| <input type="checkbox"/> l. Unknown | <input checked="" type="checkbox"/> m. Other: HISTORIC FILL AND MANUFACTURING | | |

4. Identify Oils and Hazardous Materials Released: (check all that apply)
- | | |
|---|---|
| <input checked="" type="checkbox"/> a. Oils | <input checked="" type="checkbox"/> b. Chlorinated Solvents |
| <input checked="" type="checkbox"/> c. Heavy Metals | <input checked="" type="checkbox"/> d. Others |
- Specify: PCBS, ASBESTOS

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

- | | |
|---|---|
| <input type="checkbox"/> 1. Assessment and/or Monitoring Only | <input type="checkbox"/> 2. Temporary Covers or Caps |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 4. Temporary Water Supplies |
| <input type="checkbox"/> 5. Structure Venting System/HVAC Modification System | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input type="checkbox"/> 7. Product or NAPL Recovery | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 9. Groundwater Treatment Systems | <input type="checkbox"/> 10. Soil Vapor Extraction |
| <input type="checkbox"/> 11. Remedial Additives | <input type="checkbox"/> 12. Air Sparging |
| <input type="checkbox"/> 13. Active Exposure Pathway Mitigation System | <input type="checkbox"/> 14. Passive Exposure Pathway Mitigation System |
| <input type="checkbox"/> 15. Monitored Natural Attenuation | <input type="checkbox"/> 16. In-Situ Chemical Oxidation |



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 13341

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

17. Excavation of Contaminated Soils

a. Re-use, Recycling or Treatment i. On Site Estimated volume in cubic yards _____
 ii. Off Site Estimated volume in cubic yards _____

iii. Receiving Facility: _____ Town: _____ State: _____

iiib. Receiving Facility: _____ Town: _____ State: _____

iii. Describe: _____

b. Store i. On Site Estimated volume in cubic yards _____
 ii. Off Site Estimated volume in cubic yards _____

iii. Receiving Facility: _____ Town: _____ State: _____

iiib. Receiving Facility: _____ Town: _____ State: _____

c. Landfill i. Cover Estimated volume in cubic yards 1500

Receiving Facility: TUNRKEY LANDFILL Town: ROCHESTER State: NH

ii. Disposal Estimated volume in cubic yards 5500

Receiving Facility: TURNKEY LANDFILL Town: ROCHESTER State: NH

18. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount: _____

b. Receiving Facility: _____ Town: _____ State: _____

c. Receiving Facility: _____ Town: _____ State: _____

19. Removal of Other Contaminated Media:

a. Specify Type and Volume: _____

b. Receiving Facility: _____ Town: _____ State: _____

c. Receiving Facility: _____ Town: _____ State: _____

20. Other Response Actions:

Describe: OTHER SOIL (CY): APPROX. 6,000 CY CLINTON LANDFILL, CLINTON, MA; APPROX. 40 CY GREEN ACRES SOIL RECLAMATION FACILITY, UXBRIDGE, MA; APPROX. 3,000 CY TAUNTON LANDFILL, TAUNTON, MA

21. Use of Innovative Technologies:

Describe: _____



**RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM**

Release Tracking Number

3 - 13341

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

E. LSP SIGNATURE AND STAMP :

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief.

> if Section B of this form indicates that a **Release Abatement Measure Plan** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Release Abatement Measure Status Report** and/or **Remedial Monitoring Report** is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply (ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Release Abatement Measure Completion Statement** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #:	8107		
2. First Name:	LAWRENCE	3. Last Name:	FELDMAN
4. Telephone:	7812783700	5. Ext.:	
6. Email:			
7. Signature:	LAWRENCE FELDMAN		
8. Date:	8/29/2018	9. LSP Stamp:	
	(mm dd yyyy)		





RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 13341

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

F. PERSON UNDERTAKING RAM:

1. Check all that apply: a. change in contact name b. change of address c. change in the person undertaking response actions

2. Name of Organization: EVERETT PROPERTY, LLC

3. Contact First Name: JACQUI 4. Last Name: KRUM

5. Street: 101 STATION LANDING SUITE #220 6. Title: GENERAL COUNSEL

7. City/Town: MEDFORD 8. State: MA 9. ZIP Code: 021550000

10. Telephone: 8577707807 11. Ext.: _____ 12. Email: jacqui.krum@wynnmass.

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING RAM:

Check here to change relationship

1. RP or PRP a. Owner b. Operator c. Generator d. Transporter

e. Other RP or PRP Specify: NON-SPECIFIED PRP

2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

4. Any Other Person Undertaking RAM Specify Relationship: _____

H. REQUIRED ATTACHMENT AND SUBMITTALS:

1. Check here if any Remediation Waste, generated as a result of this RAM, will be stored, treated, managed, recycled or reused at the site following submission of the RAM Completion Statement. You must submit a Phase IV Remedy Implementation Plan along with the appropriate transmittal form (BWSC108).
2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the implementation of a Release Abatement Measure.
4. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to bwsc.edep@state.ma.us.
5. If a RAM Compliance Fee is required for this RAM, check here to certify that a RAM Compliance Fee was submitted to DEP, P. O. Box 4062, Boston, MA 02211.
6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3 - 13341

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

I. CERTIFICATION OF PERSON UNDERTAKING RAM:

1. I, JACQUI KRUM, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: JACQUI KRUM 3. Title: GENERAL COUNSEL
(Signature)

4. For: EVERETT PROPERTY, LLC 5. Date: 8/29/2018
(Name of person or entity recorded in Section F) (mm/dd/yyyy)

6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street: _____
8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____
11. Telephone: _____ 12. Ext.: _____ 13. Email: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE

Date Stamp (DEP USE ONLY:)

Received by DEP on
8/29/2018 8:58:02 AM





Enclosed on CD:

Appendix B – Limitations

Appendix C – Soil Disposal Laboratory Reports

Appendix D – Asbestos In Soil Laboratory Testing Reports

Appendix E - Laboratory Report for Groundwater and Concentrated Flow of Tidal Flux Water

Appendix F- AirLogics Weekly Reports

August 2018

RAM Status Report #5
Appendices
(Former) Everett Staging Yard
1 Horizon Way, Everett, MA



GZA GeoEnvironmental, Inc.
249 Vanderbilt Avenue | Norwood, MA 02062
www.gza.com

